

Sak 13-26 Opprettelse av studietilbud – erfaringsbasert master i idrettsmedisin

Institutt for idrettsmedisin (IIM) ber NIHs styre om å opprette studietilbudet erfaringsbasert master i idrettsmedisin (Executive Master in Sports Medicine).

Erfaringsbasert master i idrettsmedisin gir praktiserende medisinere med etterutdanning i idrettsmedisin fra Den internasjonale olympiske komité (IOC), mulighet til å utvikle seg som fagpersoner som kan gi idrettsutøvere passende medisinsk behandling. Programmet har en internasjonal innretning, og IIM samarbeider med akademiske institusjoner og profesjonelle organer, slik at programmet kan plasseres innenfor eksisterende rammer og bidra til å skape nye muligheter innen idrettsmedisin, spesielt for dem som ikke har enkel tilgang til videreutdanning på dette området.

Det eksisterer ikke tilsvarende studietilbud innenfor idrettsmedisin per dags dato. Universiteter i Storbritannia, Australia, New Zealand og USA tilbyr lignende erfaringsbaserte mastergrader i samarbeid med IOC og deres etterutdanning i idrettssnærning, og erfaringsbasert master i idrettsmedisin bygges opp på følgende måte:

Godkjenning av IOC-diplom i idrettsmedisin som 20 ECTS (studiepoeng/sp)

Statistikk og metode, 10 sp

Masteroppgave, 60 sp

Dokumentasjon på at man oppfyller NIHs retningslinjer for etablering av nye studier ved NIH, programplan, programbeskrivelse, budsjett og matrise læringsmål er vedlagt saken.

Studieutvalget (SU) støtter etableringen av erfaringsbasertmaster i idrettsmedisin.

Forslag til vedtak:

Styret vedtar å opprette erfaringsbasert master i idrettsmedisin.

Vedlegg:

1. Etableringssøknad – erfaringsbasert master i idrettsmedisin
2. Programplan
3. Budsjettoverslag
4. Matrise læringsutbytter
5. Programbeskrivelse IOC Diploma
6. Faglig vurdering av IOC Diploma

Establishment of Executive Master's Degree in Sports Medicine (90 ECTS credits).

The purpose of this initiative is to enable physicians who have completed the IOC Diploma to obtain a master's degree. Based on an academic assessment, The Norwegian School of Sports Sciences will recognize part of the IOC Diploma as 20 ECTS credits. NIH will provide supervision and assessment for a 60 ECTS credits master's thesis. The programme also includes 10 ECTS credits of statistics and methods, either taken during the scope of the programme or applied to be recognized from previous studies. Together, this will award the candidates with an Executive Master's degree in Sports Medicine of 90 ECTS credits. The initiative will support international development and research, particularly in developing countries, and possibly contribute to more PhD candidates globally. As no program currently offers sports physicians the opportunity to pursue an Executive Master's degree in Sports Medicine, this will be unique worldwide, while also strengthening international collaboration and internationalization.

Background

The Health, Medicine and Science Commission of the International Olympic Committee has recognized the important role that medical and scientific support play in maintaining good health and in the preparation of athletes for competition. As part of its commitment to supporting the health and performance of athletes and to the continuing professional development of those who care for them, the IOC Health, Medicine and Science Commission now offers a postgraduate-level program in Sports Medicine. The IOC is, of course, aware that various postgraduate sports medicine programs exist around the globe (ACSM, AOSSM etc), but many of these are short courses that do not cover the broad curriculum: the IOC program is specifically designed to cover the needs of medical graduates working with Olympic athletes. The IOC Health, Medicine and Science Commission has worked in partnership with an elite group of experts to develop the program and with Sportsoracle Ltd. to administer it. More details about the program can be found on the webpage of the IOC Diploma website (www.sportsoracle.com).

The program has built on existing programs offered by leading Universities, but embraces an international faculty to offer a program that is beyond the resources of any single institution. Academic oversight of the program is provided by the twenty members of the Academic Advisory Board, who are recognized as leading international experts in the field. The program focuses on the medical implications of participation in structured sports activities at **all levels** of competition, but also considers the role of sports participation, physical activity and other lifestyle factors in promoting good health. The program was designed primarily to meet the needs of team physicians from the National Olympic Committees (NOCs) and International Federations (IFs) and those who aspire to such positions, but it also provides a sound knowledge base for those working with non-elite athletes and with individuals seeking the health benefits of an active lifestyle. The program takes advantage of new technology to deliver an innovative program and to ensure that information is current, comprehensive, authoritative and accessible. Delivery of the course involves a variety of teaching methods, including audio-visual lectures in electronic format, online discussion meetings, web-based materials, paper-based reading based on a book in sports medicine (Bahr & Mæhlum

ISBN 978-82-450-1092-3), and a residential workshop. Details of the program content and of the faculty who deliver this content are appended, and samples of the lecture content are also available. Further details of the program content and operating practices are included in the Program Handbooks, which are also available.

Requirements in applicable regulations and framework plans from the Ministry of Education must be met.

The study program is not regulated by a national framework plan. Beyond this, the requirements for accreditation of study programs are further regulated through the Regulations relating to the Universities and University Colleges Act, Chapter 1.III Accreditation of study programs. Guidelines for establishing new programs at NIH are based on these accreditation requirements. The requirements are addressed through a combination of program plans and course plans, and the individual points that must be explained in connection with the establishment of new programs at NIH.

1. Evaluation of the need for this master program nationally and internationally

The goal of the IOC Diploma in Sports Medicine conversion to a Master program is to provide a continuing education program to support the development of professionals who can provide athletes with appropriate medical care. We are working at a global level, in conjunction with the premier organizations in sport and with the input of an international group of experts in sports medicine. Our aim is to work in harmony with academic institutions and professional bodies so that this opportunity can be placed within existing frameworks and help create new opportunities in sports medicine, particularly for those who have no easy access to continuing education in this area. Since the start in 2015, more than 900 MDs from 89 countries have graduated from the IOC Diploma Program.

The IOC Diploma in Sports Medicine is a postgraduate program. Students will have a degree (MD) or equivalent learning experience in medicine and will be eligible for professional registration as a medical practitioner in their respective country. The language of instruction in the Sport medicine diploma is English, and students whose native language is not English are required to provide evidence of competence in English, eg TOEFL at 500 or above, ILET6 at 6 or above, GCSE or equivalent in English language. The workload for the Diploma program has a nominal teaching and learning load of 800 hours, spread over two six-month periods of study. This corresponds to about two thirds of the workload normally required for completion of a University MSc program. The Lecture syllabus includes 82 lectures in electronic format prepared specifically for the program by 67 internationally recognized faculty members across the two years of the program. The time it takes to go through the e-lectures, to read the set literature, and to prepare assignments will vary greatly between individuals. It is obvious that some people can achieve a satisfactory performance with a considerably smaller investment of time, but others may need to - or may choose to - invest more. There are some key dates by which assignments must be submitted throughout the program, but the program is designed to give students considerable flexibility as to how they choose to distribute the workload over the year. With the exception of the practical course and the final exam, everything is done on the online platform allowing students to work with flexibility anywhere in the world! At the end of year two, students must participate in a three-day residential program that includes opportunities for a written assessment that is completed under examination conditions as well as the acquisition of practical skills and opportunities to interact with faculty members and

fellow students. Workshops are held each year in Amsterdam, Calgary, Oslo, Stellenbosch and Seoul to give students a choice of venues and dates.

2. Explanation of the academic relevance for working life and/or further studies.

The IOC Diploma in Sports Medicine is awarded by the International Olympic Committee. The program operates under the academic oversight of an international Academic Advisory Board, who advise on and are responsible for all aspects of academic standards, including quality assurance of course content and moderation of student assessment.

Students are required to complete two formal assessments during each year of the program. All assignments are submitted electronically, and these contribute 50% to the final mark awarded. A further written paper, covering all aspects of the course, is completed under open-book examination conditions at the end of the first year and a formal supervised examination at the end of the second year. The examination paper contributes one half to the final mark for each year. Students who achieve a pass with a mark of at least 50% in both Parts of the program are eligible to graduate with the IOC Diploma in Sports Medicine. Students who achieve a mark of 75% or more will graduate with Distinction. A brief description of assignments is appended. Full details of all assessments are contained in the Program Handbooks.

The terms “certify” and “accredit” have different meanings in different countries. In some countries, professional organizations have been formed to guide the training and practice of sports medicine practitioners. These bodies often recognize courses that may be used by their members to gain or enhance their professional knowledge. Other bodies recognize individuals who have undertaken certain types of training or experience to reach a desired level of competency. Where these programs exist, we are approaching these professional organizations to see how the IOC Diploma in Sports Medicine can be used to complement or enhance the program. We will also be happy to work with newly developing organizations or groups to allow the IOC Diploma in Sports Medicine to become part of a structure to promote the practice of sports medicine. The IOC Diploma is a post-graduate program, and the workload corresponds to about two thirds of that typically required for a master’s degree. By recognizing parts of the IOC Diploma Program into the master’s degree, the students will include university courses in statistics and methodology in addition to the Master thesis, thereby obtaining a Master’s Degree at the Norwegian School of Sport Sciences.

By initiating this Master Program conversion, we have prepared a streamlined pathway for such a conversion to take place for graduates of the Diploma program in Sports Medicine. We have developed research or practicum opportunities so that students with the academic background achieved by completion of the IOC Diploma in Sports Medicine can further enhance their knowledge and professional skills.

3. Realistic evaluation of recruitment of students.

The proposal is to admit 5 master’s students the first year (Fall of 2026), with an expectation of 10-20 graduates after 2–2½ years. Changes to the number of students and whether admissions occur annually or every other year will be considered after the first implementation.

Currently >900 MDs have graduated from the IOC Diploma Program in Sports Medicine and are thus eligible to apply for the master’s degree conversion at the Norwegian School of Sport Sciences. Additionally, there are > 900 MDs working towards and during the Olympic Games for National Olympic Committees and approximately 500 MDs working for International Federations and >400 for National Olympic Committees

4. Overview and Assessment of Similar Studies at Norwegian Educational Institutions

In a review of all DBH-registered study programs, we have not been able to identify any competing offerings in Norway. There are currently no master's programs in sports medicine in Norway or the Nordic countries. The IOC also offers a Diploma program in Sports Nutrition, and for this particular Diploma, several universities have granted Prior Learning Recognition, so that a student who has completed the program can enroll at the university to convert the Diploma qualification to a Master's Degree. Such arrangements have been made in the past with the University of Stirling, UK; the University of Westminster, UK; The University of Ulster, UK; the University of the Sunshine Coast, Australia; Texas Women's University, USA; the University of Hawaii, USA and the University of Otago, New Zealand. The IOC Diploma is a post-graduate program, and corresponds to a Master's level.

5. Assessment of the study program against the department's and the Norwegian School of Sport Sciences (NIH) strategic plans

This initiative is closely aligned with the strategic priorities of the Norwegian School of Sport Sciences, particularly with regard to internationalization, increased flexibility in educational pathways, and the promotion of lifelong learning. As an IOC Collaborating Research Centre, the Department of Sports Medicine (IIM) is uniquely positioned to develop this initiative within the field of sports medicine, building directly on the academic and professional foundation of the IOC Diploma. By recognizing the IOC Diploma as equivalent to 20 credits and offering a 60 credits master's thesis, the program creates a flexible progression route for experienced clinicians to achieve a master's degree while remaining professionally active. It strengthens NIH's international engagement through collaboration with global partners and contributes to capacity building in developing countries. Furthermore, it supports lifelong learning by enabling professionals to build on prior accredited learning and advance their academic qualifications at later stages of their careers, thereby reinforcing NIH's role as a leading institution in innovative and internationally oriented education and research.

6. Statement of resource use and how the study will be financed

Revenues

The study is planned as a fully externally funded offer where the candidates themselves pay for the costs of establishing and implementing the study program. Costs include time spent on establishment and development as well as working hours for program management, student follow-up, supervision and grading. Including also external supervisor and examiner. Direct costs for marketing have also been added. Costs for internal resources are calculated with a mark-up for infrastructure, 40% overhead and a 35% mark-up for research time/dissemination/innovation. The cost is calculated for the first cohort with a total of 5 students. See Budget Executive Master's in Sports Medicine.

Costs/resources

NIH will use resources equivalent to approximately 455 hours over a stipulated period of two years for the follow-up of 5 students.

Each candidate will have a principal supervisor at the Norwegian School of Sport Sciences, as well as a local supervisor to support progress and strengthen international collaboration. Internal

supervisors will, where possible, contribute within regular working hours; however, any additional costs, as well as remuneration for external supervisors, must be covered through external funding. Supervision will follow standard guidelines for a 60 credits master's thesis and will include both meetings and feedback on written work.

Collaboration with an external co-supervisor gives students the opportunity to benefit from multicultural insights and specialized knowledge, which promotes international collaboration and can lead to innovative solutions and expanded academic networks. This approach strengthens the university's commitment to global education and prepares candidates to navigate and contribute to an increasingly interconnected world.

The master's degree program aims to recruit international students through the network of Sports Oracle, the provider of the IOC Diploma with nearly 900 candidates and approx. 100 countries represented.

With the expansion of several programs, the Academic Affairs Department will have more admissions and exams to handle. Resources to handle the increase in the student body are included through the 40% overhead surcharge in the attached budget.

7. Overview of the academic staff's expertise and the research environment in the field

The Department of Sports Medicine at the Norwegian School of Sport Sciences (NIH) is a well-established academic unit with a robust research and educational profile. It hosts a multidisciplinary community of senior researchers, professors, associate professors, postdoctoral fellows, and PhD candidates who publish widely in international peer-reviewed journals and contribute to multiple research areas, including physical activity and health, exercise physiology, injury prevention, rehabilitation, and sports medicine practice. The department also runs master's programs in sports medicine and sports physiotherapy and graduates a number of PhDs each year, contributing to both academic development and clinical practice in the field.

Closely affiliated with the department is the Oslo Sports Trauma Research Center (OSTRC), a leading research centre established in 2000 as a collaboration between NIH and Oslo University Hospital. OSTRC brings together internationally recognized researchers focused on understanding injury mechanisms, risk factors, prevention strategies, and clinical outcomes in sport. Its expertise spans epidemiology, biomechanics, clinical sports medicine, and overuse injury research, and the centre plays a significant role in global research efforts to prevent sports injuries and promote athlete health.

The combined professional community thus includes world-class experts such as professors with extensive research portfolios in sports medicine and injury prevention, active clinical researchers who bridge science and practice, and a cohort of emerging scholars and clinicians advancing evidence-based practice. This breadth of expertise supports high-quality supervision, research development, and international collaboration.

8. Quality assessments

- Academic quality ensured through established regulations and quality assurance systems at the Norwegian School of Sport Sciences for a 60 credits master's thesis.
- Independent assessment through external examiners and an oral defense.
- Qualified supervision by principal supervisors at NIH and approved local supervisors with doctoral competence.

- Regular progress of follow-up and structured supervision meetings.
- Integration with active research environments at the Department of Sports Medicine and OSTRC (or other institutes at the NIH) to ensure scientific rigor and relevance.
- Use of indicators such as student feedback, completion rates, publications, and how many that will be able to progress to PhD studies for continuous improvement.
- Periodic internal review in line with NIH's quality assurance framework.

9. Kobling til forskning/faglig utviklingsarbeid

Each master's thesis will be embedded within ongoing or planned research projects in sports medicine and related fields, contributing to the institution's research portfolio and strengthening evidence-based practice. The program will thus support knowledge generation, methodological development, and dissemination of results of relevance to both academia and clinical practice.

10. Tilknytning til praksisfeltet (praksisavtaler, veiledningskompetanse)

All candidates will be practicing physicians throughout the study period and will remain closely connected to clinical work. Their professional roles will provide a strong applied context for the master's projects, ensuring that research questions are grounded in real-world challenges in sports and exercise medicine and that the outcomes have direct relevance for patient care and health services.

11. Ordninger for studentutveksling og internasjonalisering tilpasset studiets nivå, omfang og egenart

The initiative will have a strong international profile, engaging candidates and supervisors across countries and regions. Through the dual-supervision model and collaboration with international partner institutions, the program will promote academic exchange, capacity building, and network development, particularly with institutions in developing countries, thereby strengthening internationalization at the Norwegian School of Sport Sciences.

12. Program- og emneplaner for studiet

Emnekode	Emnenavn	Studiepoeng	Semester	Emneansvarlig
MAXXX	Masteroppgave	60	Spring/fall	Hege Clemm
MET401	Research Methods and statistics	10	Fall	Jostein Steene-Johannessen
	Recognition of external studies from IOC	20		

13. Matrise som blant annet viser i hvilke emner de overordnede læringsutbytte beskrivelsene inngår

Se vedlegg «**Matrise**».

Programme description Executive Master of Sports Medicine

Accountable Academic institute: Department of Sports Medicine

Study Programme Name:

Study Programme Name “Bokmål”: Erfaringsbasert master i idrettsmedisin.

Study Programme Name “Nynorsk”: Erfaringsbasert master i idrettsmedisin.

Study Programme Name “English”: Executive Master of Sports Medicine.

Degree after completion of study programme

Degree name “Bokmål”: Erfaringsbasert master i idrettsmedisin

Degree name “Nynorsk”: Erfaringsbasert master i idrettsmedisin

Degree name English: Executive Master of Sports Medicine

Language:

Teaching and supervision are given in English.

Scope: 90 ECTS credits for two-year part time study, consisting of recognition of IOC Diploma programme as 20 ECTS credits, 10 ECTS credits in statistics and methods, and a 60 ECTS credits master thesis. This will award the candidates with a 90 ECTS Executive Master’s Degree in Sports Medicine.

Main goal

The main goal of the programme is to equip medical professionals with the knowledge and skills to provide health support to athletes, focusing on sports medicine and health-promoting activities at all levels of competition.

Relevans

Maintaining optimal health and performance is crucial for athletes at all levels, and this requires a comprehensive understanding of sports medicine and its applications. With the

increasing number of medical professionals working with elite and recreational athletes, the demand for specialized knowledge in this field has never been greater. Many sports doctors and health practitioners are tasked with supporting athletes but often lack comprehensive training in sports medicine. This gap in knowledge can lead to inadequate care and support, particularly as they navigate the complex landscape of health and performance advice.

This Master Thesis builds on the IOC Diploma in Sports Medicine. The IOC Diploma in Sports Medicine seeks to address these challenges by enhancing the quality of sports medicine practitioners in all 205 IOC member countries. This programme not only creates a global professional environment but also strengthens the network of sports medicine expertise worldwide. Initially, doctors at the Olympic Games faced significant limitations, as they were unable to properly examine and guide athletes regarding injuries and prevention strategies. Recognizing this need, the programme was established to ensure that even those from smaller nations could provide high-quality care. Ultimately, the goal is to improve the lives, health, and performance of athletes, promoting well-being that goes "beyond just gold medals".

Qualifies for

The new master's programme in Sports Medicine qualifies graduates to work in the fields of sports, health, and medicine, where specialized expertise in sports medicine is in high demand. Upon completion of the programme, candidates will be equipped to provide comprehensive health support and guidance to athletes at all levels, from amateurs to elite competitors, including those at the Olympic level, as well as to individuals in the general population seeking health benefits through an active lifestyle. The programme opens avenues for further academic development, with graduates being potentially eligible to pursue doctoral studies in sports medicine, health sciences, and related fields where their expertise is considered relevant. Throughout the programme, candidates will develop skills that enable them to contribute to the prevention and treatment of injuries, as well as the optimization of health and performance for athletes across various sports disciplines and the wider community.

Admission requirements

All applicants must meet the following requirements:

- Medical Doctoral Degree
- 2 years of documented work experience
- Completed and passed the international Olympic Committee Diploma in Sports Medicine
- English language proficiency

Documentation requirements

- Proof of financing of the tuition fee

Learning Outcomes

After completing the programme the student is expected to achieve the following learning outcomes:

Knowledge

The student:

- Has advanced knowledge of relevant theories and research within their chosen field.
- Understands research design, methodology, and ethical guidelines applicable to sport science research.
- Has in-depth theoretical insight into the topic being investigated in the master's thesis.

Skills

The student can:

- Plan, facilitate, and carry out research and development (R&D) projects.
- Critically evaluate existing research and theories within their field.
- Apply research methods correctly and ethically in the chosen field, including the ability to design, conduct, analyze, and interpret research effectively.
- Communicate their project and research findings clearly and effectively, both in writing and orally.
- Work independently on a large and complex project over an extended period.

General Competence

The student:

Can manage an independent scientific project in accordance with academic and ethical standards.

- Demonstrates the ability to take responsibility for their own learning and professional development.
- Can reflect critically on methodological choices and research results.
- Understands and applies ethical guidelines for research within their field.
- Is qualified to engage in advanced academic or professional work within sport sciences.

Learning Methods and Activities

During this part of the programme, the students will work independently and in cooperation with a supervisor or supervisory team to plan, carry out, and report their master's project.

The departments will organize joint meetings for master's students during the thesis phase.

The master's thesis is an individual assignment. However, students may use parts of the same data material from larger joint projects. If the thesis is part of a larger project, this project must be described. It must be clearly stated which part of the project the master's student is responsible for, what the student has carried out independently, and which data has been provided by others. The selections made and the methods used to collect and process both the student's own and collaborators' data must be described in detail.

The thesis must be written in English.

A 60 ECTS thesis should be between 20.000 and 20.000 words. The title page, abstract, table of contents, tables, figures, reference list, and appendices are not included in the word count. Formatting requirements: Times New Roman, 12-point font, 1.5 line spacing, and normal margins (2.5 cm).

The master's thesis may also be submitted as a scientific article. This type of thesis consists of two main parts:

1. An introduction, and
2. A scientific article.

In the complete document, the introduction is usually presented before the article. The introduction should be **8,000–10,000 words**, excluding front matter and references. Its main purpose is to demonstrate that the candidate has strong theoretical knowledge of the topic and methodological insight beyond what is presented in the article.

The article must be written in English and follow the author guidelines of the chosen journal, including international standards for scientific reporting relevant to the research design used (e.g., CONSORT, STROBE, PRISMA, STARD, SRQR). The student must be the first author, and the article-based master's thesis must be the student's own work.

Reference is made to separate guidelines on formal requirements for the content and structure of the master's thesis.

Assessment / Examination

- Students are graded on a scale from A to F.
- The final grade is based on an overall assessment of the written master's thesis and the oral defense.
- To be admitted to the oral examination, the written thesis must be passed (minimum grade E).
- If the thesis is graded as not passed, it must be resubmitted and passed before the oral defense can take place.
- During the oral defense, the student will give an initial presentation of approximately 15 minutes. The total duration is about 1 hour.
- After the examination, the student will receive oral feedback on the awarded grade.

The examination committee consists of three members: the supervisor, one internal examiner, and one external examiner. The supervisor chairs the committee but does not participate in the grading.

Plagiarism Control

Please note that thesis submitted in WISEflow will be checked for plagiarism.

Study model

Emnekode	Emnenavn	Studiepoeng	Semester	Emneansvarlig
MAXXX	Masteroppgave	60	FALL or SPRING	Hege Clemm
MET401	Research Methods and statistics	10	Fall	Jostein Steene- Johannessen
	Recognition of external studies from IOC	20		

Suitability assessment

There is no statutory requirement for suitability assessment of the master's programme.

Framework plan

The master's programme is not subject to such requirements.

Collaboration with other institutions

The principal supervisor shall be employed at the Norwegian School of Sport Sciences. In addition, the candidate is required to have a local supervisor associated with the project. This supervisor must hold a doctoral degree and be formally pre-approved by the Norwegian School of Sport Sciences (NIH). The purpose of this arrangement is to promote closer international collaboration and to foster academic linkages between institutions worldwide, with particular emphasis on institutions in developing countries.

Exchange opportunities

The students will complete their studies in their home country and consequently exchange is not relevant.

Facilitation, students, partner university

The study programme is designed as an externally fully funded programme and is therefore

open to all qualified applicants. It is therefore not relevant to recruit explicitly through our collaboration agreements.

Budsjettoverslag Executive Master in Sports Medicine

Studiet er planlagt 100 % eksternt finansiert og dermed økonomisk selvbærende. Utkast budsjett er forankret i arbeidsgruppen og med økonomidirektør ved NIH. Første kull er beregnet med utgangspunkt i måltall 5 studenter og pris for 60 studiepoengs masteroppgave er beregnet til ca. kr 160.000, - fordelt over 2 års innbetaling eller fire semester per student.

Rasjonale for beregning av pris/kostnad er basert på:

- Timer medgått
 - o Prosjektledelse* (utarbeiding programplan, LUB, sakspapirer til SU og møtevirksomhet)
 - o Programansvarlig
 - o Veiledningshonorar intern veileder
 - o Veiledningshonorar ekstern veileder
 - o Sensur
- Sosiale kostnader og feriepenger (28 %)
- Det er beregnet kostnad for forskningstid tilsvarende 35 % av andel hel stilling, for internt ansatte
- Overhead på intern timebruk (40 %) er lagt på for internt ansatte. Overhead dekker arbeidstid studieadministrasjon/administrasjon. Overhead er beregnet på medgått arbeidstid før tillegg forskning.
- Husleie (Husleiesats 15.456,12, -)
- Direkte kostnader (markedsføring/kjøp annonsering)

*Det er budsjettert med et antall timer for etablering av program som da også vil dekke tid medgått til revidering/utvikling og oppfølging etter etablering

Budsjettmatrise

BUDSJETTPOST	TIMELØNN/ KOSTNAD INK SOS.KOST og OH	ANTALL TIMER	FAKTOR	Lønnskostnad	Husleie (IK)	Lønn inkludert husleie	Beregnete kostnader
Prosjektledelse (utarbeiding av programplan, LUB, sakspapirer til SU, møter), intern med forskningstid	kr 1 524,70	50	1	kr 76 234,85	kr 474,70	kr 76 709,55	kr 76 709,55
Programansvarlig Master, intern med forskningstid	kr 1 524,70	75	1	kr 114 352,28	kr 712,05	kr 115 064,32	kr 115 064,32
Studentoppfølging, veiledning masteroppgave, 5 studenter, intern med forskningstid	kr 1 524,70	200	1	kr 304 939,40	kr 1 898,79	kr 306 838,19	kr 306 838,19
Veiledningshonorar ekstern veileder 5 studenter, ekstern	kr 785,93	100	1	kr 78 592,63	NA	NA	kr 78 592,63
Valgfri fysisk samling NIH?			1	kr -			
Sensur masteroppgave, 5 studenter, 2 sensorer, inkludert muntlig eksamen intern med forskningstid	kr 1 524,70	120	1	kr 182 963,64	kr 1 139,27	kr 184 102,91	kr 184 102,91
Sensur veileders tid, 5 studenter, intern med forskningstid	kr 1 524,70	10	1	kr 15 246,97	kr 94,94	kr 15 341,91	kr 15 341,91
Markedsførings tjenester/kjøp annonsering	kr 30 000,00	1	1	kr 30 000,00	NA	NA	kr 30 000,00
Ikke lagt på påslag							
TOTALT BEREGNET OVERSLAG KOSTNAD/PRIS ETABLERING OG DRIFT AV ETT KULL 5 studenter							kr 806 649,50
						Kost per student	kr 161 329,90

Underlagsdata budsjett

Årslønn professor NIH - standard (ikke høyest og ikke lavest)	kr 1 000 000,00
Fratrukket OU-fond	kr 400,00
Antall arbeidstimer/år	1628
Timelønn	kr 614,00
Lønn inkludert sosiale kostnader (28 %)	kr 785,93
Lønn inkludert forskning/formidling/innovasjon. Påslaget er lagt til 35 % forskningstid for internt ansatte	kr 1 210,33
Overhead KUN på timeløn før påslag forskning/innovasjon/formidling (timelønn m sos.kost)	kr 314,37
Lønnskostnad per time totalt, intern	kr 1 524,70

Antall studenter	5
Antall timer veiledning 60 sp oppgave, total	60
Antall timer beregnet veiledning fra intern veileder	40
Antall timer beregnet veiledning fra ekstern veileder	20
Sensur masteroppgave 60 sp oppgave inkludert muntlig eksamen	12
Veileders tid muntlig eksamen per kandidat	2

Infrastruktur (tilsvarende som det ville vært for husleie) ett årsverk (fått av Tore B 10. april 2024)	kr 15 456,12
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Modell som viser i hvilke emner de overordnede læringsutbyttebeskrivelsene inngår

[illegible]

Modell som viser fordeling av vurderingsformer på programnivå.

Studieprogram																	
Programmets vurderingsformer	Vitenskapelig metode og statistikk	Exercise biology and sport performance analysis 1A	Ernæringsfysiologi	Kostholdsråd og -metoder	Prosjektplan og fordypningsoppgave	Avansert idrettsernæring	Praktisk idrettsernæring	Masteroppgave									
Skriftlig skoleeksamen	X	X	X			X											
Hjemmeeksamen																	
Hjemmeeksamen med muntlig																	
Flervalgseksamen																	
Mappearbeid																	
Mappevurdering med eksamen																	
Ferdighet																	
Laboratorieøvelser					X												
Oppgaver/Essay																	
Rapporter	X			X		X											
Loggbok																	
Aviskronikk																	
Ukentlige resymeer																	
Praktisk-metodisk eksamen*						X											
Muntlig eksamen				X													
Bacheloroppgaver/Fordypningsoppgave								X									
Prosjektplan					X												
Refleksjonsnotat																	
Praksisplan																	
Praksisrapport							X										
Muntlig presentasjon gruppe		X	X			X											
Muntlig presentasjon individuell					X												

*rollespill av case

Modell som viser fordeling av arbeidsformer og praksis på programnivå.

[illegible]



The IOC Diploma program in Sports Medicine

Background

The Health, Medicine and Science Commission of the International Olympic Committee has recognised the important role that medical and scientific support play in maintaining good health and in the preparation of athletes for competition. As part of its commitment to supporting the health and performance of athletes and to the continuing professional development of those who care for them, the IOC Health, Medicine and Science Commission now offers a postgraduate-level program in Sports Medicine. The IOC is, of course, aware that various postgraduate sports medicine programs exist around the globe (ACSM, AOSSM etc), but many of these are short courses that do not cover the broad curriculum: the IOC program is specifically designed to cover the needs of medical graduates working with Olympic athletes. The IOC Health, Medicine and Science Commission has worked in partnership with an elite group of experts to develop the program and with sportsoracle limited to administer it. More details about the program can be found on the webpage of the IOC Diploma website (www.sportsoracle.com).

The program has built on existing programs offered by leading Universities, but embraces an international faculty to offer a program that is beyond the resources of any single institution. Academic oversight of the program is provided by the twenty members of the Academic Advisory Board, who are recognised as leading international experts in the field (Appendix 1). The program is focused on the medical implications of participation in structured sports activities at all levels of competition, but also considers the role of sports participation, physical activity and other lifestyle factors in promoting good health. The program was designed primarily to meet the needs of team physicians from the National Olympic Committees (NOCs) and International Federations (IFs) and those who aspire to such positions, but it also provides a sound knowledge base for those working with non-elite athletes and with individuals seeking the health benefits of an active lifestyle.

The program takes advantage of new technology to deliver an innovative program and to ensure that information is current, comprehensive, authoritative and accessible. Delivery of the course involves a variety of teaching methods, including audio-visual lectures in electronic format, online discussion meetings, web-based materials, paper-based reading, and a residential workshop. Details of the program content (Appendix 2) and of the faculty who deliver this content (Appendix 3) are appended, and samples of the lecture content are also available. Further details of the program content and operating practices are included in the Program Handbooks, which are also available.

Scope of the Program

The goal of the IOC Diploma in Sports Medicine is to provide a continuing education program to support the development of professionals who can provide athletes with appropriate medical care. We are working at a global level, in conjunction with the premier organisations in sport and with the input of an international group of experts in sports medicine. Our aim is to work in harmony with academic institutions and professional bodies so that this opportunity can be placed within existing frameworks and help create new opportunities in sports medicine, particularly for those who have no easy access to continuing education in this area.

The IOC Diploma in Sports Medicine is a postgraduate program. Successful applicants will have a degree or equivalent learning experience in medicine and will be eligible for professional registration as a medical practitioner. The language of instruction is English, and students whose native language is



not English are required to provide evidence of competence in English, eg TOEFL at 500 or above, ILET6 at 6 or above, GCSE or equivalent in English language.

The workload for the Diploma program has a nominal teaching and learning load of 800 hours, spread over two six-month periods of study. This corresponds to about two thirds of the workload normally required for completion of a University MSc program. The Lecture syllabus includes 82 lectures in electronic format prepared specifically for the program by 67 internationally recognised faculty members across the two years of the program. The time it takes to

go through the e-lectures, to read the set literature, and to prepare assignments will vary greatly between individuals. It is obvious that some people can achieve a satisfactory performance with a considerably smaller investment of time, but others may need to - or may choose to - invest more.

There are some key dates by which assignments must be submitted throughout the program, but the program is designed to give students considerable flexibility as to how they choose to distribute the workload over the year.

At the end of year two, students must participate in a three-day residential program that includes opportunities for a written assessment that is completed under examination conditions as well as the acquisition of practical skills and opportunities to interact with faculty members and fellow students. Workshops are held each year in Amsterdam, Calgary, Oslo, Stellenbosch and Seoul to give students a choice of venues and dates.

Online meetings

We hold monthly online meetings across the course of the two years of the program. At least one Program Director and one Academic Advisory Board member attend and allow students the opportunity to ask questions and engage with a discussion on the most recent module.

Online discussion forum

The online discussion forum provides an opportunity for students to interact with each other and with program faculty. The forum is organised with a series of threads relating to different elements of the program. Students can add new threads according to their interests.

Program Assessment

The IOC Diploma in Sports Medicine is awarded by the International Olympic Committee. The program operates under the academic oversight of an international Academic Advisory Board, who advise on and are responsible for all aspects of academic standards, including quality assurance of course content and moderation of student assessment.

Students are required to complete two formal assessments during each year of the program. All assignments are submitted electronically, and these contribute 50% to the final mark awarded. A further written paper, covering all aspects of the course, is completed under open-book examination conditions at the end of the first year and a formal supervised examination at the end of the second year. The examination paper contributes one half to the final mark for each year. Students who achieve a pass with a mark of at least 50% in both Parts of the program are eligible to graduate with the IOC Diploma in Sports Medicine. Students who achieve a mark of 75% or more will graduate with Distinction.



A brief description of assignments is appended (Appendix 4). Full details of all assessments are contained in the Program Handbooks.

Program fees

The tuition fee for the program is currently set at GB£2900.00 per annum. This covers all necessary materials, including online access to Br J Sports Med, the program textbooks, and participation in the meeting at the end of Year 2: students are responsible for their own travel and accommodation costs for this meeting. A limited number of students receive financial support from the Olympic Solidarity fund to cover tuition fees and the flight cost associated with attending the nearest residential workshop in Part 2.

Graduates of the Program

The first cohort of students graduated from the IOC Diploma program in Sports Medicine at a ceremony held at the in Lausanne in May 2015. 59 students, drawn from 26 different countries, graduated. At present (2025) a total of 712 students have graduated, with a further 164 currently working through the program. Graduates and current students are drawn from 98 countries.

Continuing Professional Development

The terms “certify” and “accredit” have different meanings in different countries. In some countries, professional organisations have been formed to guide the training and practice of sports medicine practitioners. These bodies often recognised courses that may be used by their members to gain or enhance their professional knowledge. Other bodies recognise individuals who have undertaken certain types of training or experience to reach a desired level of competency. Where these programs exist, we will approach these professional organisations to see how the IOC Diploma in Sports Medicine can be used to complement or enhance the program. We will also be happy to work with newly developing organisations or groups to allow the IOC Diploma in Sports Medicine to become part of a structure to promote the practice of sports medicine.

The IOC also offers a Diploma program in Sports Nutrition, and several universities have granted Prior Learning Recognition, so that a student who has completed the program can enrol at the university to convert the Diploma qualification to a Masters Degree. Such arrangements have been made in the past with the University of Stirling, UK; the University of Westminster, UK; The University of Ulster, UK; the University of the Sunshine Coast, Australia; Texas Women’s University, USA; the University of Hawaii, USA and the The University of Otago, New Zealand. The IOC Diploma is a post-graduate program, and the workload corresponds to about two thirds of that typically required for a Masters Degree.

We invite interested universities to work with us to prepare a streamlined pathway for such a conversion to take place for graduates of the Diploma program in Sports Medicine. We encourage these universities to develop research or practicum opportunities so that students with the academic background achieved by completion of the IOC Diploma in Sports Medicine can further enhance their knowledge and professional skills.

Lars Engebretsen

Ron Maughan

Program Directors



APPENDIX 1: ACADEMIC ADVISORY BOARD

Program Directors

Professor Lars Engebretsen MD, PhD

Professor Engebretsen is currently the Professor Emeritus of the Department of Orthopedic Surgery at Oslo University Clinic and stepped down Dec 31 2024 as Head of Medical Sciences in the International Olympic Committee. Professor Engebretsen has published over 500 articles and book chapters, with a citation index (H-index) of 118. He is among the world's most productive in clinical, epidemiological and basic science research in the areas of general sports medicine, knee ligaments, cartilage and prevention of sports injuries and illnesses. He has received research grants and awards from many agencies and associations, including the National Institutes of Health, the Norwegian Council for Research in Science and Humanities, the Norwegian Ministry of Health, the American Orthopedic Society of Sports Medicine (AOSSM) and the International Olympic Committee. He and his group have won several research awards around the world, and he was inducted into the AOSSM Hall of Fame in July 2015 and became an ESSKA Honorary member in 2016 and ISAKOS Honorary member in 2017 and EFFORT Honorary member in 2022. He received the Nordic Prize in Medicine in 2016. Engebretsen is involved with three research groups: Knee ligaments together with May Arna Risberg in Oslo and Robert LaPrade in Vail, Colorado, now in Minnesota, the Oslo Sports Trauma Research Center co-chaired with professor Roald Bahr and emphasizing prevention of injuries and diseases in sports, and the Oslo Cartilage Group, which encompasses research from the cell to rehab after surgery, involving molecular biologists, pathologists, radiologists, physiotherapists and orthopedic surgeons.

Professor Ron Maughan BSc, PhD

Ron Maughan is an Honorary Professor in the School of Medicine at St Andrews University, Scotland. He spent much of his career trying to understand the physiological and metabolic responses to exercise and the nature of fatigue, but included many digressions along the way. He has published extensively in the scientific literature and is author or editor of a number of books on sports nutrition and exercise biochemistry. He has worked with several International and National associations and teams in various sports. He is a director of sportsoracle limited, which delivers online education programs on behalf of the Health, Medical and Scientific Commission of the International Olympic Committee.

Academic Advisory Board members

Dr Elisabeth Arendt, USA	Professor Roald Bahr, Norway
Dr Niall Elliott, UK	Dr Marie-Elaine Grant, Ireland
Professor Jon Karlsson, Sweden	Professor Gino Kerkhoffs, Netherlands
Prof Karim Khan, Canada	Dr Michael Kjaer, Denmark
Dr Hide Koga, Japan	Dr Guoping Li, China
Prof Margo Mountjoy, Canada	Dr Andrew Murray, UK
Professor Antonio Pelliccia, Italy	Dr Claudia Reardon, USA
Professor Martin Schwellnus, South Africa	Dr Mike Wilkinson, Canada

Dr Elizabeth Arendt MD, USA

Dr Arendt is Professor and Vice Chair of the Department of Orthopaedic Surgery, University of Minnesota. She has served as medical director for men and women's intercollegiate athletics at the University of Minnesota for 30 years, and continues as a team physician for select female sports. She is also a nationally recognized speaker on knee conditions with an emphasis on those that are more frequent in females in particular ACL injuries and patellofemoral concerns. In addition to her university responsibilities, she represented the



University of Minnesota and the Big Ten Conference on the NCAA Safeguards Committee for 6 years 1990-1996. She was on the President's Council for physical fitness in sport 1992-2000. She was also head team physician for Women's USA Hockey for the World Games in 1992 and 1994. She has served on the faculty of several Advanced Team Physician courses. She continues to be a strong advocate for sport safety, and establishment of more evidence based criteria for return to sports after knee injury/surgery.

Prof Roald Bahr MD, Norway

Roald Bahr, MD PhD, is a Professor of Sports Medicine in the Department of Sports Medicine at the Norwegian School of Sport Sciences and the Chair of the Oslo Sports Trauma Research Center. He is also the Chief Medical Officer for Olympiatoppen and Chair of the Medical Department at the National Olympic Training Center, and also heads the Aspetar Sports Injury & Illness Prevention Programme. Bahr is authorized as a Sports Medicine Physician by the Norwegian Society of Sports Medicine and is a fellow of the American College of Sports Medicine. He serves as Team Physician for the beach volleyball national teams. He is past chair of the National Council on Physical Activity, past president of the Norwegian Society of Sports Medicine and past president, secretary and member of the FIVB Medical Commission. He is a member of the IOC Medical Commission—Medical and Scientific Group. His main research area is sports injury prevention, and he has published more than 350 original research articles, review papers and book chapters, in addition to several books, with a citation index (H-index) of 108. He is the main editor of the widely acclaimed textbook "IOC Manual of Sports Injuries", which is published in seven languages, as well as the "IOC Handbook of Sports Injury Prevention".

Dr Niall Elliott, UK

Dr Niall Elliott, sports medicine physician based in Scotland with roles as Head of Sports Medicine at the Scottish Institute of Sport as well as Chief Medical Officer for the British Olympic Association. 20 years of working in sport from grassroots rugby and ice hockey to multiple summer and winter Olympic Games. The day-job is managing the health and wellbeing of elite athletes, working closely with the wider sport performance teams which include healthcare colleagues (physiotherapists, psychologists, hospital specialists), physical preparation coaches, sport-specific coaches and the numerous levels of management.

Dr Marie-Elaine Grant, Ireland

Marie-Elaine Grant, Ireland's Olympic Team Lead Physiotherapist from 1990 – 2010, a graduate of University College Dublin and a Specialist Member of the Irish Society of Chartered Physiotherapists and is currently a member of the Medical and Scientific Commission of the International Olympic Committee since her appointment in 2010. In 1990 she was appointed to the Irish Olympic Medical and Committee, in this role she planned and implemented strategies for injury prevention and provision of sports physiotherapy and injury rehabilitation services for high performance athletes. She has worked with many of Ireland's Olympic athletes, she was appointed as Lead Physiotherapist to the Irish Olympic Team for 5 consecutive Summer Olympic Games commencing with Barcelona 1992 through to Beijing 2008. In 2010 Marie-Elaine was appointed to the International Olympic Committee's (IOC) Medical and Scientific Commission, in this role she is responsible for monitoring physiotherapy activities and facilities for the Olympic Games (Winter and Summer) and is the main contact person for the IOC for all issues related to physiotherapy and rehabilitation. She has been responsible for monitoring preparations and the delivery of physiotherapy and physical therapies services on behalf of the IOC for the Summer Olympic Games London 2012, Winter Olympic Games Sochi 2014, Summer Olympic Games Rio 2016 and most recently the Winter Olympic Games PyeongChang 2018. She is currently facilitating with physiotherapy and physical therapies preparations for the Tokyo 2020 Olympic Games. She was awarded a PhD in 1997, she has peer reviewed publications relating to sports injury and physiotherapy topics and is regularly invited to present at international conferences. She



continues to remain actively involved in the education and training of undergraduate and postgraduate physiotherapists. She regularly contributes to conferences and advises on programs for ongoing professional development for students and her peers.

Dr Jon Karlsson MD, PhD, Sweden

Jon Karlsson is a professor and director of research of Orthopaedics and Sports Medicine at the Sahlgrenska University Hospital/Sahlgrenska Academy, Gothenburg, Sweden. He has served as team physician for the football team IFK Gothenburg for almost 3 decades. He has served as a board member of the Swedish Association of Sports Medicine, and as President during 1999-2001. He is currently Secretary of the ISAKOS Executive Board. Since 2008, he has been Editor-in-Chief of Knee Surgery Sports Traumatology Arthroscopy (KSSTA), and between 2003-2008 Associate Editor of the journal of Arthroscopy. Jon's main research field is sports traumatology, knee injuries, foot and ankle injuries and tendon injuries. He is the author of more than 300 peer-reviewed scientific papers and 26 books in the field of sports medicine and orthopaedics.

Professor Gino Kerkhoffs, Netherlands

Gino Kerkhoffs (1972) is professor and head of the Department of Orthopedic Surgery of the Amsterdam University Medical Centers; chair of the Academic Center of Evidence based Sports medicine (ACES), and co-chair of the Amsterdam Collaboration on Health and Safety in Sports (ACHSS), one of the 11 International Olympic Committee (IOC) Centers of Research Excellence for the Prevention of Injury and Promotion of Health in Athletes. His clinical work focusses on sports injuries of the lower extremity and he has been honorary recognized as Team NL Preferred Physician for providing excellent orthopedic medical care to elite athletes by the Dutch National Olympic Committee. Through his research Kerkhoffs tries to help athletes to return to sport safely and quickly as well as prevent long term after career sequelae osteoarthritis and mental health problems.

Prof Karim Khan MD, Canada

Prof Karim Khan is Director of Research and Education at Aspetar. He has previously worked with international athletes from several Australian sports associations and professional ballet. Dr Khan has a strong background in research. He is also a recipient of the prestigious Prime Minister's Award in Australia for service to sports medicine.

Dr Michael Kjaer, Denmark

Michael Kjaer is a Professor in Sports Medicine at the Faculty of Health and Medical Sciences at University of Copenhagen, Denmark. He is a MD, did a D.M.Sci (PhD) in exercise endocrinology and is a specialist in Rheumatology. His research area is the understanding of connective tissue and skeletal muscle to exercise, and he is head of Institute of Sports Medicine, Copenhagen that includes both a Sports Medicine Clinic and a research group at the Copenhagen University Hospital at Bispebjerg.

Dr Hideyuki Koga, Japan

Hideyuki Koga MD PhD is a director and professor of Department of Joint Surgery and Sports medicine, Tokyo Medical and Dental University (TMDU), Tokyo, Japan. Dr Koga graduated from TMDU in 1999, and joined Department of Orthopaedic Surgery, TMDU. After clinical fellowship, he also entered graduate school and have defended PhD at TMDU in 2008 with the main topics regarding cartilage regeneration using mesenchymal stem cells. Then he went to Oslo Sports Trauma Research Center, Norway from 2008 until 2010. His research topic was regarding knee anterior cruciate ligament (ACL) injury prevention, and clarified detailed ACL injury mechanisms first in the world using a sophisticated 3D video analysis called model-based image-matching technique. He has continued his work on ACL injury prevention, especially focusing on ski injury as a member of medical committee, International Ski Federation, and also as a member of scientific committee, IOC World Conference Prevention of



Injury and Illness in Sport. Since 2010 after back to Japan, Dr Koga has been performing many knee ligament surgeries, as well as several clinical and biomechanical researches at TMDU. His another hot topic now is meniscus preservation. He has developed a new surgical procedure called arthroscopic centralization to reduce/prevent meniscus extrusion. Until now he has published more than 160 papers, has given lectures or had presentations at many international congresses. Dr Koga became the professor of the Department of Joint Surgery and Sports Medicine, TMDU in 2020. He honorably obtained the traveling fellowship between JOSKAS (Japanese Orthopaedic Society of Knee, Arthroscopy, and Sports Medicine) and SIGASCOT (Società Italiana del Ginocchio Artroscopia Sport Cartilagine Tecnologie Ortopediche) in 2016. He also serves on the editorial board of Journal of Orthopaedic Science, Annals of Joint and Asia-Pacific Journal of Sports Medicine, Arthroscopy, Rehabilitation and Technology.

Prof Margo Mountjoy MD, Canada

Margo Mountjoy is a sport medicine specialist in Guelph, Canada. She is a member of the FINA Bureau – sports medicine liaison and a member of the IOC Medical Commission – Games Group. She is responsible for medical care at FINA World Championships and at the Olympic Games. In addition, she is a member of several expert working groups working on IOC projects to promote athlete health in between the Games including Sexual Harassment & Abuse in Sport, Female Athlete Triad, Fitness & Health of Children, Exercise in Extreme Environments, Training the Elite Child Athlete, Prevention of Chronic Disease and the Periodic Health Evaluation. Margo is published in the scientific literature in the field of aquatic athlete health and injury and illness prevention in elite sport. She is a member of the editorial board of the Clinical Journal of Sports Medicine. She is also a member of the WADA Therapeutic Use Exemption Committee and the ASOIF Medical Consultative Group. She is the Director of Student & Resident Affairs at the Michael G. DeGroote School of Medicine at McMaster University, Canada.

Dr Andrew Murray, UK

Andrew is the Chief Medical and Scientific Officer for the European Tour Group (Golf), responsible for their overall medical/ scientific strategy, operations and research/ development. He has worked Olympic, Paralympic and Commonwealth Games, and led teams at various World and European Championships in various sports. He is an honorary Professor in Sport and Exercise Medicine at Liverpool John Moore's University and a member of UKCCIIIS, and IOC research centre of excellence. An ex-international runner, Andrew once ran 4300km from Scotland to the Sahara to raise awareness of physical activity for health and was awarded a Point of Light award from the UK Prime Minister. X @docandrewmurray

Prof Antonio Pelliccia MD, Italy

Dr Pelliccia is Chief of Cardiology of the Institute of Sports Medicine of the Italian National Olympic Committee, and professor of Patho-physiology in Sports Medicine, at Post-Graduate School in Sports Medicine La Sapienza University of Rome, Italy. He has been the Chief of the Medical Staff of the Italian National Team at the Olympic Games in Salt Lake City 2002, Turin 2006, Beijing 2008, Vancouver 2010, London 2012. He completed his medical studies in the University Medical School La Sapienza in Rome, 1969 to 1975, where he also attained the Specialization in Cardiovascular Disease, 1979 and subsequently in Sport Medicine, 1983. He is the first author of over 100 papers published in peer-reviewed journals and Editor of several cardiology textbooks. He was chairman of the Sports Cardiology Section of the EACPR of the European Society of Cardiology from 2006-2008. He is an expert in: : Implementation and methods of preparticipation screening for cardiovascular disease at risk of sudden death in athletic populations; Clinical management of athletes with cardiovascular diseases; Assessment of left ventricular hypertrophy and cardiac remodelling induced by exercise conditioning and deconditioning; Criteria of differential diagnosis of athlete's heart from structural cardiac disease

Dr Claudia Reardon, USA



Dr Claudia Reardon holds an MD degree from the University of Wisconsin (USA) School of Medicine and Public Health, where she also completed psychiatry residency training. She is a Professor at the University of Wisconsin and serves as consulting sports psychiatrist for University of Wisconsin collegiate athletes. Dr Reardon has served as Co-Chair of the International Olympic Committee's Work Group on Mental Health in Elite Athletes and Co-Directs the IOC's Diploma and Certificate Programs on Mental Health in Elite Sport. She serves on the IOC's Olympic Refugee Foundation Think Tank. Dr Reardon also has served on the International Society for Sports Psychiatry (ISSP) Board of Directors since 2010, currently serving as its Education Committee Chair, and on the National Football League's

Comprehensive Mental Health and Wellness Committee. She has published and presented widely on a number of sports psychiatry related topics and is Co-Editor of the book "Clinical Sports Psychiatry: An International Perspective".

Prof Martin Schwellnus MBBCh, MSc, MD, South Africa

Martin has a MBBCh (Cum Laude) University of The Witwatersrand, MSc University of Cape Town, Doctor of Medicine (MD) University of Cape Town. He is a Fellow of the American College of Sports Medicine. He is Professor of Sport and Exercise Medicine University of Pretoria, South Africa and Consultant Sports and Exercise Medicine Physician at the Sport and Exercise Medicine Clinic, Sports Science Institute of South Africa, Cape Town, South Africa. He is also Director of the FIFA Medical Center of Excellence, Cape Town and Director of the IOC Research Center, Pretoria. He is Medical Consultant to numerous national and international athletes and teams and a Member of the International Olympic Committee (IOC) Medical Commission. He is a member of the Editorial Board of the British Journal of Sports Medicine and Editor-in-chief of the Olympic Textbook of Sports Medicine. He has published numerous scientific articles (over 300) in international Sports Medicine and national peer reviewed and non-peer reviewed scientific journals, and numerous chapters in Sports Medicine books.

Dr Mike Wilkinson, Canada

Dr Mike Wilkinson, MBBCh, MBA, Dip Sports Med, is a sports medicine physician and the Director of human performance for the Vancouver Canucks. He qualified at the University of the Witwatersrand, Johannesburg, South Africa and has 30+ years experience providing medical coverage for sports events. He also holds the CASM Diploma in Sports Medicine and an MBA, Queens University. Prior to joining the Canucks he practiced sports and exercise medicine at the Allan McGavin Sports Medicine Centre at UBC, Vancouver where he is an Assistant Clinical professor. Mike recently served as the Director, Medical Services at VANOC 2010, responsible for all host medical services for the Olympic and Paralympic games, He serves as the CMO and team physician for Canadian Rowing since 1999 and has worked with the Canadian senior Rugby Team since 1997 (including for the 2003 and 2007 World Cup campaigns). He was selected as a core physician for the Canadian Olympic teams for 2004 / 2008 / 2012 Olympics, and as the Chief Medical Officer for the Canadian Olympic Committee at the Pan-American Games in Rio de Janeiro in 2007. At present Mike is a member of the Board of Directors for Own The Podium (OTP) and a member of the international Rowing (FISA), and Bobsleigh (FIBT) federations Sports medicine commissions. He is an expert advisor to the IOC medical commission, SOCHI 2014 and Toronto 2015 organizing committees. Mike is a member of the National Sports medicine and Science advisory Committee (NSSMAC), the CASEM team physicians committee, the BC and Canadian Rugby Sport Medicine & Science Advisory Committee, and a past Medical Director for the Vancouver International Marathon.



APPENDIX 2: LECTURE CONTENT

Year 1

- 1.1 The practice of sports medicine
- 1.2 Medical care of athletes and sports teams 1
- 1.3 Medical care of athletes and sports teams 2
- 1.4 Sports injuries in general
- 1.5 Medical emergencies in sport
- 1.6 Drugs and doping in sport

Year 2

- 2.1 General principles
- 2.2 Limb Injuries
- 2.3 Head, neck, back/hip/groin injuries
- 2.4 Different populations: women, children, older, and paralympic athletes
- 2.5 Sport-specific injuries
- 2.6 Sport, exercise and health

Year 1

Module 1: The practice of sports medicine

- | | |
|---|------------------|
| 1. The medical and scientific activities of the IOC to protect athlete health | Lars Engebretsen |
| 2. Roles and responsibilities of sports medicine physicians | Marcus Robinson |
| 3. Ethics in sports medicine: principles, particularism, and perennial problems | Mike McNamee |
| 4. The 2 hour marathon: A template for considering what limits human performance | Mike Joyner |
| 5. Statistical analysis and data interpretation – what is significant for the statistician and the athlete support team | Jos Twisk |
| 6. Interpreting the literature | Ron Maughan |

Module 2: Medical care of athletes and sports teams 1

- | | |
|---|-------------------|
| 1. Clinical assessment principles of medical history and clinical examination | Niall Elliott |
| 2. How to read an athlete's ECG and Abnormal ECG findings in athletes | Antonio Pellicia |
| 3. Physiological basis of training and fitness | Dave Martin |
| 4. Load, fatigue, adaptation and recovery | Inigo Mujika |
| 5. Protecting the mental health of athletes | Claudia Reardon |
| 6. Travel medicine: medical hazards of travel, time zone changes, injury and illness risk | Martin Schwellnus |
| 7. Medical services at major multi-sports games | Richard Budgett |

Module 3: Medical care of athletes and sports teams 2

- | | |
|--|--------------------|
| 1. Sports Nutrition | Ron Maughan |
| 2. Metabolic disease, exercise and the athlete | Wayne Derman |
| 3. The athlete with breathing problems | Tonje Reier-Nilsen |
| 4. Gastrointestinal issues (GI) issues in athletes | Martin Schwellnus |
| 5. Ear, nose and throat conditions in the athlete | Martin Schwellnus |
| 6. Sports Dermatology | Brian Adams |
| 7. Sports Dentistry | Ian Needleman |
| 8. Eye injuries in sports medicine | Morten Moe |
| 9. Acute Respiratory Infections in Athletes – Part 1 & 2 | Martin Schwellnus |

Module 4: Sports injuries in general

- | | |
|--|-----------------|
| 1. Acute injuries and overuse injuries | Karim Khan |
| 2. Tissue-specific sports injury - tendon, muscle, bone and ligament | Michael Kjaer |
| 3. Reducing injury risk: injury prevention activities | Roald Bahr |
| 4. Strength training for injury prevention and rehabilitation | Marco Cardinale |



5. Sports Taping & Bracing for the Athlete Methods, Indications, Benefits & Limitations
6. Rehabilitation and return to training and competition
7. General management principles of overuse injuries

Marie-Elaine Grant
Mario Bizzini
Benjamin Clarsen

Module 5 : Medical emergencies in sport

1. First aid at sports events
2. Tackling concussion: clearing the clutter
3. The collapsed athlete
4. Assessment and management of acute injury
5. Hyperthermia and heat illness
6. Safety measures at training and competition venues

Efraim Kramer
Jon Patricios
Juan Manuel Alonso
Chris Milne
Doug Casa
Mike Wilkinson

Module 6: Drugs and doping in sport

1. An introduction to WADA and the world anti-doping program
2. The list of Prohibited Substances and Methods
3. Athlete Biological Passport
4. Doping control procedures: The physicians role
5. Therapeutic use exemptions
6. Medicines Management for sporting events
7. Supplements, food and positive doping tests

Alan Vernec
Alan Vernec
Reid Aikin
David Gerrard
Alan Vernec
Mark Stuart
Ron Maughan

Year 2

Module 1: General principles

1. Imaging in Sports Medicine
2. Acute muscle injuries
3. Bone Stress Injuries: medical considerations
4. Stress Fractures - diagnosis and treatment, fact and fiction
5. Understanding tendinopathies: Pathoaetiology and treatment rationale
6. Cartilage injuries: basic principles
7. Rehabilitation and return to sport after shoulder injuries in overhead sports
8. Return to play in sport
9. Orthobiologic Treatments for Sports Injuries

Ali Guermazi
Gino Kerkhoffs
Margo Mountjoy
Bruce Twaddle
Jill Cook
Mats Brittberg
Martin Asker
Winne Meeuwisse
Iain Murray

Module 2: Limb Injuries

Start 01/11

1. Patterns of injury
2. The Athlete's Shoulder: Anatomy, Exam, Common Injuries in Sport
3. The Athlete's Elbow (2024)
4. Practical examination of Hand and wrist (2022)
5. Lower extremity injuries: An overview (2024)
6. Knee injuries (2025)
7. ACL injuries (2025)
8. Hamstring injuries (2020)
9. Leg pain in a sporting population (2025)
10. Ankle injuries in athletes (2021)
11. Athletic foot injuries (2022)

Bruce Hamilton
Mark Hutchinson
Mark Hutchinson
Sondre Hassellund
Elizabeth Arendt
Nick Mohtadi
Rob LaPrade
Johannes Tol
Bruce Twaddle
Gino Kerkhoffs
Thomas Haytmanek

Module 3: Head, neck, back/pelvis, groin

Start 01/12

1. Facial injuries in sport
2. Field of play cervical spine management
3. Groin pain in athletes can be diagnosed, treated and prevented
4. Hip-related pain in athletes

Mike Loosemore
Mike Wilkinson
Per Holmich
Paul Dijkstra

Module 4: Different populations: women, children, older, and paralympic athletes Start 01/01



1. Female, women, girl athlete health
2. Weight control and disordered eating in elite athletes
3. Pre-participation screening of the adolescent athlete
4. Injury prevention in the young children
5. The older athlete
6. The Paralympic athlete
7. The trans athlete

Margo Mountjoy
Jorunn Sundgot-Borgen
Frank Mayer
Joske Nauta
Jim Miller
Wayne Derman
Tommy Lundberg

Module 5: Sport-specific issues

1. Marathon Medicine
2. Football Medicine
3. Tennis
4. Lean sports
5. Injury and Illness in Olympic Winter sports

Bill Roberts
Tim Meyer
Babette Pluim
Margo Mountjoy
Kathrin Steffen

Module 6: Sport, Exercise and Health

1. Effect of Physical Training as Treatment or Prevention of Diseases – exercise is medicine Christine Moseid
2. Exercise and cancer: from prevention to survivorship. John Saxton
3. Diet, exercise and obesity James Betts
4. Sedentary behaviour: health risks and solutions Hidde van der Ploeg
5. Medical care at mass participation distance running events Martin Schwellnus



APPENDIX 3: FACULTY BIOGRAPHIES (excluding the program directors and members of the Academic Advisory Board listed above)

Program Faculty

Brian Adams (USA)	Reid Aikin (Canada)	Juan Manuel Alonso (Qatar)
Elisabeth Arendt (USA)	Martin Asker (Sweden)	Roald Bahr (Norway)
James Betts (UK)	Mario Bizzini (Switzerland)	Mats Brittberg (Sweden)
Richard Budgett (Switzerland)	Marco Cardinale (Qatar)	Doug Casa (USA)
Benjamin Clarsen (Norway)	Jill Cook (Australia)	Wayne Derman (South Africa)
Paul Dijkstra (Qatar)	Niall Elliott (UK)	Lars Engebretsen (Norway)
David Gerrard (New Zealand)	Marie Elaine Grant (Ireland)	Ali Guerhazi (USA)
Bruce Hamilton (New Zealand)	Sondre Hassulland (Norway)	Tom Haytmanek (USA)
Per Hölmich (Denmark)	Mark Hutchinson (USA)	Mike Joyner (USA)
Gino Kerkhoffs (Netherlands)	Karim Khan (Canada/Qatar)	Michael Kjaer (Denmark)
Efraim Kramer (South Africa)	Robert LaPrade (USA)	Mike Loosemore (UK)
David Martin (Australia)	Ron Maughan (UK)	Frank Mayer (Germany)
Mike McNamee (UK)	Winne Meeuwisse (Canada)	Tim Meyer (Germany)
James Miller (USA)	Chris Milne (New Zealand)	Morton Moe (Norway)
Nick Mohtadi (Canada)	Christine Moseid (Norway)	Margo Mountjoy (Canada)
Inigo Mujika (Basque Country)	Iain Murray (UK)	Joske Nauta (The Netherlands)
Ian Needleman (UK)	Jon Patricios (South Africa)	Antonio Pelliccia (Italy)
Babette Pluim (Belgium)	Claudia Reardon (USA)	Tonje Reier-Nilsen (Norway)
William Roberts (USA)	Marcus Robinson (Canada)	John Saxton (UK)
Martin Schweltnus (South Africa)	Kathrin Steffen (Norway)	Mark Stuart (UK)
Jorunn Sundgot-Borgen (Norway)	Hans Tol (Qatar)	Bruce Twaddle (New Zealand)
Jos Twisk (Netherlands)	Hidde van der Ploeg (Netherlands)	Mike Wilkinson (Canada)
Alan Vernece (Canada)		

Dr Brian Adams

Dr Adams graduated cum laude from Yale College in 1991, from Yale Medical School in 1995, and attained his Master's in Public Health from Harvard in 2004. He is currently the interim Chairman of the Department of Dermatology at the University of Cincinnati College of Medicine and the Chief of Dermatology at the Veterans Affairs Medical Center. He has published over 100 peer-reviewed medical articles and book chapters, predominantly dealing with skin and sports and frequently lectures nationally to athletes, coaches, dermatologists, athletic trainers, and sports medicine physicians. Dr Adams sits on 4 editorial boards of journals in both the fields of dermatology and sports medicine and is a special advisor to the national sports committee of the American Academy of Dermatology. He is the dermatology consultant for numerous high school, collegiate, and professional organizations, including the NCAA (National Collegiate Athletic Association). Dr Adams is also the official dermatologist for professional women's tennis (WTA-Women's Tennis Association). An international expert on Sports Dermatology, Dr Adams solo authored the first ever textbook on the topic, entitled Sports Dermatology, published by Springer Science & Media, LLC.

Dr Reid Aikin

Dr Reid Aikin is Associate Director in the Department of Science & Medicine at WADA, where he oversees the Athlete Biological Passport (ABP) program. Dr Aikin did his undergraduate and graduate studies in the biological sciences at McGill University (Canada), followed by a postdoctoral fellowship at the University of Nice (France). He has been with WADA since 2014 where his role includes overseeing the scientific development of the ABP and developing the global use of the ABP.



Martin Asker

Martin is a sports medicine therapist specialised in shoulders. He has worked with different elite European handball teams since 2000 and for the last 15 years with a special focus on youth and adolescent elite players. He works part time at a multidisciplinary sports medicine clinic in Stockholm, Sweden, mainly seeing shoulder related problems and part time a researcher and director of the Handball Research Group at the Musculoskeletal & Sports injury Epidemiology Centre at Sophiahemmet University, Stockholm. The overall aim of his research is to deepen the knowledge in shoulder function and injuries in overhead athletes and the specific aim is to investigate risk factors for, and prevention of shoulder injuries, return to sport criteria and performance enhancement. He also has a special interest throwing biomechanics and its relationship to throwing performance and injuries. Martin is an appreciated lecturer and has presented at numerous national and international conferences and been teaching master classes with a focus on shoulder diagnostics and managements for the past 10 years. He has written several peer-review articles and book chapters on overhead athletes and shoulder injuries. Martin is also a board member of the Medical Committee of the Swedish Handball Federation and head of the medical team of the Swedish youth- 18 national handball team.

Prof James Betts

James is Professor of Metabolic Physiology at the University of Bath, where he is Co-Director of the Centre for Nutrition, Exercise & Metabolism and Chair of the Department for Health Research Ethics Committee. His research employs randomised controlled trials to study the effects of nutrition on metabolic regulation, the findings of which have been published in scientific papers in top-ranking scholarly journals. A particular focus of his work has been to examine the links between nutrient timing and human health, for which James was awarded the Nutrition Society Cuthbertson Medal at the Royal Society of Medicine for 'excellence in clinical nutrition and metabolism research'. James contributes widely within the University, having supervised many doctoral students through their research training; his integration of research into teaching was recognised by the University's Mary Tasker Award for excellence in teaching.

Dr Mario Bizzini

Dr Mario Bizzini, PT, PhD, is a research associate at the Schulthess Clinic, a private orthopaedic and sports medicine centre in Zürich, Switzerland. He works there for the orthopaedic department (lower extremity, www.schulthess-klinik.ch) and for the FIFA Medical Research and Assessment Centre (F-MARC, www.fifa.com/medical). He earned a Master of Science degree (MSc) from the University of Pittsburgh (School of Health and Rehabilitation Sciences, UPMC Center for Sports Medicine, 2001), and in August 2010 he finished his doctoral study (PhD) at the Oslo Sports Trauma and Research Center, Norwegian School of Sports Sciences (Oslo, Norway). His research interests focus on hip and knee rehabilitation in sports, football injuries and sports injury prevention. He has currently published 47 peer-reviewed papers, 5 books, 8 book chapters, and lectured at more than 150 national and international congresses. He is a reviewer for various scientific journals, Senior Associate Editor of the British Journal of Sports Medicine (<http://bjsm.bmj.com/>) and Associate Editor of the International Journal of Sports Physical Therapy (www.spts.org/ijspst). He is also a specialist in sports physiotherapy and committee member of the Swiss Sports Physiotherapy Association (www.sportfisio.ch), and of the International Federation of Sports Physical Therapy (www.ifspt.org), a rehabilitation consultant for professional ice hockey and football teams, and has also worked at three FIFA World Cups (Germany 2006, China 2007-women, South Africa 2010) and at two Olympic Games (Beijing 2008, London 2012).

Prof Mats Brittberg

Mats Brittberg is a member of the Cartilage Research Unit at University of Gothenburg and an orthopaedic surgeon at Region Halland Orthopaedics at the Kungälv Hospital, Kungälv, Sweden. He received his MD at the University of Gothenburg in 1978 and completed a specialization in



orthopaedics in 1985. In 1992 he passed the Swedish Orthopedic Board Exam (S.O.B.E.), and in 1996 he earned a PhD. He is now a professor of orthopaedics connected to the Institution of clinical sciences and orthopaedic department, University of Gothenburg. Mats Brittberg's research has been focused on cartilage repair and with main focus on cartilage regeneration with in vitro expanded autologous chondrocytes. Today the main interest is the European Connective Tissue Engineering centre (ECTEC) which is research collaboration between the Sahlgrenska Academy at University of Gothenburg with the institution of Polymer Technology, Chalmers Technical University. Mats Brittberg has also had research collaboration with Virginia Tech in USA on biotribology in cartilage and osteoarthritis as well as research collaborations with other centres in Europe and North America. In September, 2010, Mats Brittberg received the ICRS Genzyme Lifetime Achievement Award in cartilage research and in 2012, the Shetty- Kim Foundation (SKF) Scientific award. In 2014, Mats Brittberg also received the SKF and UK Cartilage Club's Life time achievement Award. Mats Brittberg has been on the board of TESI (Tissue engineering Society International) and has been chairing the Cartilage Committee of ESSKA 2006-08. Since the start 1997, he has been working with ICRS, as a secretary, Vice-president and President (2006-2008) and finally Past-President (2008- 2009). He is since January 2013 Editor-in-Chief for the Sage journal 'CARTILAGE'. He is also associate editor with ESSKA journal as well as being on the editorial board of Osteoarthritis and Cartilage. Mats Brittberg is also involved in the Go:Life platform for scientific meetings in Gothenburg.

Dr Richard Budgett

Dr Richard Budgett has been Medical and Scientific Director of the IOC since November 2012. He was part of the British coxed fours that won the gold medal at the 1984 Los Angeles Olympic Games. He attended the Winter Olympics in 1992 and 1994 as the doctor for the British Bobsleigh Team. He was Chief Medical Officer to the British team for the 1998, 2002 and 2006 Winter Olympic Games, and led the Team GB HQ medical team at the 1996, 2000, 2004 and 2008 Summer Olympic Games and was appointed as CMO to the 2012 London Olympic Games in February 2007. In 2005 he was appointed to the World Anti-Doping Agency list committee and later chaired that committee. He was elected to the council of the Faculty of Sports and Exercise Medicine in 2007 and was appointed Chairman of BASEM in 2008. He is also Chairman of the Amateur Rowing Association Medical Committee. He was Chairman of the British Olympic Association Medical Committee, and Director of Medical Services at the British Olympic Medical Institute until he was appointed Medical and Scientific Director of the International Olympic Committee in 2012. Since 1987 he has conducted research into the problem of Fatigue and Underperformance and has published widely on the subject of Overtraining, which is now called Unexplained Underperformance Syndrome (UUPS).

Dr Marco Cardinale

Dr Marco Cardinale is the Head of Physiology of Aspire Academy in Doha (Qatar). He led the Sports Science activities for the preparation of Team GB at the Beijing 2008, Vancouver 2010 and London 2012 Olympics. A published and cited author in the scientific literature on various aspects of human performance, he has also patented an innovative exercise device consisting of a vibratory biofeedback system. Dr Cardinale is an honorary reader in computer science in Sport at University College London and an Honorary Senior Lecturer at the University of Aberdeen in the School of Medical Sciences. He has been an advisor to various companies (e.g. Polar Electro, and Technogym), government agencies (e.g. the European Space Agency) and professional sport organizations and national governing bodies in 5 countries (USA, Italy, Spain, Sweden, UK) before working in Qatar. In 2011 he was awarded the honour of "Cavaliere dello sport pontino" by the Italian Olympic Committee for his services to international sports. Dr Cardinale is currently an advisory board member of NIKE (SPARQ) and a member of the scientific commission of the Italian Track and Field Federation. Dr Cardinale holds a BSc from ISEF in Italy, a MSc from the US Sports Academy in the USA and a PhD from Semmelweis University in Hungary.



Dr Doug Casa

Dr Casa is the CEO of the Korey Stringer Institute (since it was founded in 2010) and is a professor of Kinesiology (since 1999) at the University of Connecticut. The mission of the KSI (ksi.uconn.edu) is to provide research, education, advocacy, and consultation, to maximize performance, optimize safety, and prevent sudden death for the athlete, warfighter, and laborer. Additionally, he is the editor of a book titled: *Preventing Sudden Death in Sport and Physical Activity (2nd edition, 2017)*, published by Jones & Bartlett in cooperation with the American College of Sports Medicine. Another recent book titled *Sports and Physical Activity in the heat: Maximizing Performance and Safety* was published by Springer in the winter of 2018. His latest book- *Elite Soccer Players: Maximizing Performance and Safety* was published by Routledge in 2020. Dr Casa has published over 350 peer- reviewed publications/book chapters and presented more than 600 times on subjects related to maximizing performance in the heat, exertional heat stroke, heat-related illnesses, preventing sudden death in sport, and hydration. As a licensed athletic trainer Dr Casa has successfully treated 337 cases of exertional heat stroke (with 0 fatalities). In addition, from 2018 through 2021 he served on the International Olympic Committee Adverse Weather Impact Expert Group for the Olympic Games Tokyo 2020 (taking place in 2021) that focused on the extreme heat anticipated for these games.

Dr Ben Clarsen

Ben Clarsen is a physiotherapist at the Norwegian Olympic Training Center and a researcher at the Oslo Sports Trauma Research Center (OSTRC). He has a bachelor degree in physiotherapy from the University of Sydney, a master degree in sports physiotherapy from the Norwegian School of Sport Sciences and a PhD from OSTRC. Ben's main clinical and research interest is the treatment and prevention of overuse injuries in sport. He is a lecturer on the Norwegian sports physiotherapy master program and on the IOC Advanced Team Physician Course. Ben has 15 years' experience working with elite athletes, particularly in road cycling where he has been physiotherapist for a number of professional teams, as well as the Norwegian and Australian national programmes. He is a senior associate editor of BJSM and is currently working as the managing editor of the 5th edition of Brukner and Khan's Clinical Sports Medicine textbook.

Dr Jill Cook

Jill Cook is a Professor in musculoskeletal health in the La Trobe Sport and Exercise medicine Research Centre at La Trobe University in Melbourne Australia. Jill's research areas include sports medicine and tendon injury. After completing her PhD in 2000, she has investigated tendon pathology, treatment options and risk factors for tendon injury. Jill currently supplements her research by conducting a specialist tendon practice and by lecturing and presenting workshops both in Australia and overseas.

Prof Wayne Derman

Wayne Derman is Professor and Director of the Institute of Sport and Exercise Medicine at Stellenbosch University. He is also Co-Director of the IOC Research Centre of South Africa and the FIFA Medical Centre of Excellence, which focuses on injury prevention, and protection of the health of the athlete. He has provided specialist Sports Medical consulting services to the South African Athletics, Rugby, Soccer, Cricket, Commonwealth & Olympic Teams as well as members of the public. Professor Derman has played an important role in clinical support for South Africa's athletes at International level. He fulfilled the positions of Chief Medical Officer for the South African Team to the Sydney 2000, Athens 2004 Olympic Games, and Medical Officer for the South African Paralympic Team to Beijing 2008 and London 2012. In December to May 2002, he served as Flight Surgeon to Cosmonaut Mark Shuttleworth during the "First African in Space" mission in Russia and served as the Medical Officer for Cape Town for the FIFA 2010 World Cup. He has published over 250 peer reviewed articles, book chapters and policy documents and has presented on the International stage in over 25 countries. Having diverse interests, he has been awarded many accolades in his career ranging from a Fellowship



of the American College of Sports Medicine; the Val Schreire Award for the Outstanding Investigator in the Cardiovascular Field in Southern Africa; the Paul Harris award from Rotary International for community contribution; to a Mondi Award nomination for journalism. In December 2004, Professor Derman was named recipient of the Department of Health and Health Professionals Council award for Excellence in Health Care in South Africa.

Dr Paul Dijkstra

Dr Paul Dijkstra is a Consultant Sport and Exercise Medicine Physician and Director of Medical Education at Aspetar, Qatar Orthopedic and Sports Medicine Hospital. He is a DPhil Evidence Based Health Care candidate at the University of Oxford. His thesis aims to inform a more rigorous, inclusive and evidence-based approach to research on primary cam morphology. He has extensive clinical and leadership experience in elite sport including UK Athletics Chief Medical Officer to the Beijing and London Olympic Games and Head Quarters Doctor for Team England at the 2014 Glasgow Commonwealth Games. He was the Local Organizing Committee Chief Medical Officer for the 12th FINA World Swimming Championships (25m) in Doha, 2014 and the Deputy Medical Director, Local Organizing Committee, IAAF World Athletics Championships, Doha 2019. As Director of Medical Education at Aspetar he is responsible for an extensive program of accredited Continuing Medical Education / Continuing Professional Development for all healthcare professionals at Aspetar. He provides oversight to Aspetar's undergraduate and graduate student education programs; this includes the different fellowship programs in collaboration with the clinical departments. He is a member of the Qatar National Clinical Guideline and Pathway Committee as well as Qatar's National Musculoskeletal Taskforce. He is Assistant Professor of Medicine at Weill Cornell Medicine Qatar and has published several papers in peer reviewed journals. He also contributed to book chapters – most recently on the team approach to Sport and Exercise Medicine in the fifth edition of Brukner & Khan's Clinical Sports Medicine.

Dr David Gerrard

David Gerrard, CNZM, OBE, is a sports administrator, sports medicine specialist, and former Olympic Games swimming representative from New Zealand. As a competitive swimmer, Gerrard was a specialist in the butterfly stroke winning the national 110 yards title from 1962 to 1968 (excluding 1964) and the 220 yards title for ten consecutive years from 1960 to 1969. As a representative at the Olympic Games Gerrard competed at the 1964 Summer Olympics, reaching the semi-finals of the 200 metres butterfly. He also represented New Zealand twice at the British Empire and Commonwealth Games. At the 1962 Games in Perth, Australia he reached the finals in both the 110 yards and 220 yards butterfly. In 1966 Games in Kingston, Jamaica he won Gold in the 220 yards butterfly and Bronze as part of the New Zealand 4x110 yards medley relay team. He also reached the final of the 110 yards butterfly. After his retirement from competition, Gerrard gained a medical degree (MB ChB) at the University of Otago in 1977 and has specialised in the field of sports medicine, mainly based in Dunedin at the University of Otago. Over the years he has strongly participated in teaching and research in sports medicine, lipids and diabetes. He joined the University of Otago in 1981 and in 2007 Gerrard had become the Associate Dean of the School of Medicine and Associate Professor of Sports Medicine at the University of Otago Dunedin School of Medicine, and in that year's Queen's Birthday Honours was made a Companion of the New Zealand Order of Merit. In 2014 Gerrard was promoted to Professor at the University of Otago Dunedin School of Medicine, and in 2016 was granted the title Emeritus Professor. He was awarded the OBE in the 1995 New Year Honours, for services to sports medicine and sport. He was chair of Drug Free Sport New Zealand from 2003 to 2010. He was on the committee of the International Swimming Federation's Sports Medicine Committee for 30 years and has chaired the Therapeutic Use Exemptions committee of the World Anti-Doping Agency since 2013. He is currently working to develop a test to detect use of synthetic Erythropoietin, a drug frequently used in Blood doping.

**Dr Ali Guermazi**

Dr Ali Guermazi is a Professor of Radiology & Medicine at Boston University School of Medicine. His research focuses on imaging the musculoskeletal system, especially in characterizing the magnetic resonance imaging (MRI) and X-ray changes that occur in osteoarthritis. His work also focuses on imaging in sports medicine and especially the role of MRI in preventing sports injuries and predicting return to play. Dr Guermazi was the Expert Radiologist to the IOC during Rio de Janeiro Olympics 2016. He is the founder and Director of the Quantitative Imaging Center (QIC) within the Department of Radiology at Boston University School of Medicine, Boston, MA, a research group focusing on Musculoskeletal Radiology and especially MRI that provides radiological analysis services for industry, foundation or NIH-sponsored trials. Professor Guermazi was the Deputy Editor of the musculoskeletal imaging section for the RADIOLOGY journal from 2013-2019. He has authored or co-authored more than 560 peer-reviewed papers and made numerous scientific presentations at national and international osteoarthritis, rheumatology and radiology meetings.

Dr Bruce Hamilton

Dr Bruce Hamilton completed studies in Physical Education and Medicine at Otago University in NZ, prior to completing the Australasian College of Sports Medicine Fellowship in 2001. He worked at the Australian Institute of Sport, and was Chief Medical Officer for Athletics Australia for 2001 – 2002. Subsequently, he moved to the United Kingdom as the West Midlands Regional Lead Physician for the English Institute of Sport. In 2005 he was appointed Chief Medical Officer to UK Athletics. He worked in Aspetar (Qatar Orthopaedic and Sports Medicine Hospital) as a Sports Medicine Physician from 2008, and as Chief of Sports Medicine from 2010 - 2012. In 2013 Dr Hamilton returned to NZ to work as the Medical Lead for both High Performance Sport NZ and the NZ Olympic Committee. He is responsible for ensuring NZ has a world class medical service to support NZ's elite Olympic Athletes. Dr Hamilton has postgraduate qualifications in Tropical Medicine and Sports Law and is a Fellow of the Australasian and UK Faculties of Sports Medicine. He has research interests in muscle injury, the medical screening of Athletes and has published over 60 peer reviewed manuscripts or book chapters. Dr Hamilton has attended four World Track and Field Championships, two World Triathlon Championships, three Commonwealth and two Olympic Games in a medical capacity.

Dr Sondre Hassulland

I am a Norwegian orthopaedic surgeon working at the Hand and Elbow Unit at Oslo University Hospital and in the private at C-Medical in Oslo. I have been working mainly with hand and elbow problems for 10 years. In 2016/2017 I did an upper limb fellowship in Newcastle, Australia. The Hand and Elbow Unit in Oslo take care of acute and elective hand and wrist cases and predominantly elective elbow cases. I am also part of the faculty in the national courses in Hand Surgery and in Arthroscopic Surgery for surgeons specializing in orthopaedic surgery. Further, I am doing a PhD on the treatment of distal radius fractures in elderly. My special field of interest is wrist and elbow arthroscopy.

Dr Tom Haytmanek

Dr Haytmanek was born in Bethlehem, Pennsylvania which is in the eastern part of the United States. His childhood was filled with ice hockey and trying to learn how things worked. As a toddler, he dropped and broke the top of a toilette while trying to figure out what happened when the lever was depressed. During medical school, he was drawn to orthopaedics since it has an emphasis on anatomy and biomechanics. During his residency at Duke University, he began to work in foot and ankle surgery and found it intriguing. Dr Haytmanek completed his fellowship in foot and ankle surgery at The Steadman Clinic in Vail, Colorado which is situated in the Rocky Mountains of the Western United States. As a United States National Olympic and Paralympic Medical Center, he began to work extensively with professional and Olympic level athletes. His fellowship was under the direction of Dr Thomas Clanton, a physician with 30 years of experience in treating elite athletes with sports related injuries of the foot and ankle. Dr Haytmanek returned to Vail to join Dr Clanton and has been a full



time staff member of The Steadman Clinic since 2017. He lives in the Vail Valley with his wife and two daughters, ages 7 and 9.

Dr Per Hölmich, DMSc

Dr Hölmich is Associate Professor at University of Copenhagen. He is an Orthopaedic surgeon specialised in arthroscopic surgery; in recent years with a focus on lower extremity surgery, in particular hip arthroscopy. Head of Arthroscopic Center Amager and Sports Orthopedic Research Center–Copenhagen (SORC-C) at Copenhagen University Hospital, Amager-Hvidovre in Denmark. Head of Sports Groin Pain Center (SGPC) at Aspetar Orthopedic and Sports Medicine Hospital, Doha, Qatar. Many years of clinical practice involved in sports at all levels including International elite football, Danish Olympic athletes and Danish Premier League football. Main research areas include Groin injuries, Arthroscopic surgery, and Adolescents in sports.

Dr Mark Hutchinson

Dr Mark R. Hutchinson is a Professor of Orthopaedics and Sports Medicine at the University of Illinois in Chicago where he serves as Head Team Physician for all sports at the university. Over the past 25 years Dr Hutchinson has cared for athletes at local, national, and international events. He has authored over thirty book chapters including serving as lead author on the elbow section for the IOC's handbook in sports medicine. He has authored over one hundred journal articles and presented over a thousand talks at local, national, and international meetings and events. He has proudly attended every IOC World Congress on Sports Sciences and IOC World Congress in Injury Prevention and is ecstatic to serve as faculty for the IOC's Diploma in Sports Medicine.

Dr Mike Joyner MD

Michael J. Joyner, MD, is the Caywood Professor of Anesthesiology at Mayo Clinic where he was named Distinguished Investigator in 2010. In 2018 he received an Outstanding Investigator Award from the NIH. His research interests include oxygen transport, exercise physiology, human performance, blood pressure regulation, metabolism, and transfusion practices. Most recently he has led national efforts related to convalescent plasma and COVID-19. Joyner is also interested in the limits of scientific reductionism and has challenged the Precision Medicine narrative in the popular press and key scientific journals. He attended the University of Arizona where he graduated with a B.S. in 1981 and M.D. in 1987. He completed his Anesthesiology training at Mayo in 1993 and then developed an independent research program that has been funded by the NIH since that time. His former fellows have established research programs at leading institutions throughout the world and he has held leadership positions at Mayo, in the extramural research community, and with leading journals.

Prof Efraim Kramer

Professor Kramer, Adjunct Professor in Emergency Medicine, is the retired head of the Division of Emergency Medicine at the University of the Witwatersrand, Johannesburg and Extraordinary Professor in Sport Medicine at Pretoria University, Pretoria. He has been involved in the sphere of prehospital and hospital emergency medicine for over 35 years, with a special interest and participation in Mass Casualty / Disaster Medicine and Urban Search + Rescue Medicine, having attended various earthquakes, tsunamis, hurricanes, floods, and volcanic eruptions as on-site emergency physician director for Rescue South Africa. He has also been actively involved in Athletic and Para-Athletic Sport Mass Gathering Emergency Medical Services, as educator, instructor, and onsite sports emergency physician, having visited 77 countries during his tenure. He has attended 7 FIFA World Cups, including his appointment as Chief Tournament Medical Officer for the FIFA World Cup Russia 2018, CAF Medical Officer for the African Cup of Nations, Egypt 2019 and recently Race Medical Director of the 94.7km Ride Jo'Burg Cycle Race 2021.

**Dr Robert LaPrade**

Dr LaPrade is known as a specialized clinician scientist who has utilized his comprehensive bench-to-bedside research on sports medicine injuries to improve patient care and invent new ways to treat knee problems. Many of the surgeries that he has devised have been performed worldwide and are recognized as the top level of care for many complex knee surgeries. He practices at Twin Cities Orthopedics in Edina, Minnesota. As one of the world's busiest complex orthopaedic knee sports surgeons, Dr LaPrade has published more than 525 peer-reviewed scientific manuscripts, 125 book chapters, and has given over 1000 professional presentations, symposia, and instructional course lectures. He has received many awards for his research, including the OREF Clinical Research Award, considered a Nobel Prize of Orthopaedics. He is recognized as a pioneer in knee research, with many referrals from international and nationally recognized physicians due to his successful patient outcomes and his development of more effective surgical techniques for the reconstruction of complex knee injuries. Additionally, he has been involved in collaborations with basic scientists and physician scientists at many academic research institutions around the world. He currently serves on multiple editorial boards of orthopaedic journals and is an adjunct professor at the University of Minnesota.

Prof Mike Loosemore

Professor Mike Loosemore is an NHS Consultant in Sport and Exercise Medicine (SEM) at the Institute of Sport, Exercise and Health, University College London, where he treats musculoskeletal and sports injuries. He is also working to promote exercise as a preventative intervention and treatment in many medical conditions. As one of the lead Sports Physicians for the English Institute of Sport, he treats elite athletes from a wide range of sports and is currently the doctor to the British Olympic Boxing and GB Snow Sports teams. Professor Loosemore has travelled extensively with national squads, accompanying teams to five Olympic and five Commonwealth Games as well as multiple World and European Championships. Further, he was the Chief Medical Officer for England at the Commonwealth Games in New Delhi 2010 and Glasgow 2014, deputy CMO for the Rio Olympics and the CMO at the 2018 Winter Olympics in South Korea. Professor Loosemore achieved a PhD in the pathophysiology of boxing injuries. He is currently active in SEM research and has published work on various aspects of SEM including respiratory illness in athletes, reducing sedentary behaviour in children, physical activity in the homeless and work on concussion prevention. He is also involved in the education of future SEM doctors. He was awarded an honorary Doctor of Science for services to SEM in 2011. He was then awarded the Robert Atkins award for consistently valuable medical service to sport in 2014 and in 2017 he was made an Honorary Professor in Sport and Exercise Medicine. Professor Loosemore was awarded an MBE for his services to Sports Medicine in 2017 and in 2019 Professor Loosemore became the first Professor of Sport and Exercise Medicine at University College London.

Prof Mike McNamee

Mike McNamee is Professor of Applied Ethics, and Director of the Research Institute for Ethics and Law, Swansea University, Wales, UK, and Professor of Ethics and Integrity at KU Leuven, Belgium. He has dual backgrounds in philosophy and in sport sciences. Over the last 30 years he has pioneered the Sports Ethics as a research field. His published works include *Research Ethics in Exercise, Health and Sport Sciences* (2006) *Sports, Virtues and Vices* (2008) and *Sport, Medicine, Ethics* (2016), *Bioethics, Genetics and Sport* (2018). He is the Founding Editor of the international journal *"Sport, Ethics and Philosophy"* (2007-17), and Co-Editor of Routledge's *"Sport Ethics"* book series (1998-) comprising more than 30 volumes. His work has been funded by various national research councils and the European Commission, in topics ranging from anti doping, and eating disorders in sports, and human enhancement ethics and policy. He is Programme Director of Erasmus+ funded Master Degree in Sport Ethics and Integrity (2016-25). Mike has served as an expert ethicist for a number of organisations including UN Office on Drugs and Crime, and the IAAF Steering Group on transgender eligibility. He is a member of the Ethics Expert Group of the World Anti Doping Agency.

**Dr David Martin**

David received his B.Sci. degree in Zoology from the College of Idaho, his M.Sci. degree in Exercise Physiology from Northern Michigan University and his Ph.D. in Physiology from the University of Wyoming. Before beginning doctoral studies, David worked as a research assistant at the United States Olympic Training Centre in Colorado Springs Colorado. His Master's research focused on the stability of the "Anaerobic Threshold" training intensity and doctoral research was aimed at better understanding peaking, tapering and overtraining in cyclists. David was senior sports physiologist working within the Department of Physiology at the Australian Institute of Sport in Canberra and was also the National Sport Science Coordinator for Cycling Australia. As a Sport Scientist, David has provided support for Australian Cycling teams in the lead up to the 1996, 2000, 2004, 2008 and 2012 Olympic Games. He is currently Director of Performance Research and Development at the Philadelphia 76ers. David has more than 80 peer reviewed publications, 8 book chapters and many articles in popular cycling magazines. As an advisor to Olympic coaches and athletes David is very interested in winning environments and methodology that reveal human potential.

Prof Frank Mayer

Prof Dr Mayer was born in 1964. He studied Medicine in Tübingen, Germany and worked at the University Clinic in Tübingen till 2002 and at the University Clinic in Freiburg till 2005. Since 2006 he is Medical Director at the University Outpatient Clinic - Center of Sports Medicine at Potsdam University, Germany. He is orthopedic surgeon and specialist in Sports Medicine. The main Focus of his research is the efficiency of conservative treatment strategies in prevention and rehabilitation of sports injuries in high-performance athletes as well as the overall population. Further topics are preparticipation examinations in adolescent and adult athletes, therapy and prevention of low back pain and tendinopathies. Besides daily patient care Prof. Mayer is consultant in different athletic teams and responsible for the sports medicine in the Federal state of Brandenburg, Germany. Prof. Mayer is Chair of the Scientific board of German Society of Sports Medicine and Prevention (DGSP) and member of the medical commission of the German Olympic Sports Association (DOSB).

Prof Winne Meeuwisse

Dr Meeuwisse is the Medical Director of the National Hockey League, and a sport medicine physician with clinical interests that range from recreational to elite athletes. He is an Expert Member of the Medical and Scientific Group of the International Olympic Committee (IOC) Medical and Scientific Commission. He has had a long career in research on sport health screening, risk analysis and injury prevention. He is the founder of the Sport Injury Prevention Research Centre in the Faculty of Kinesiology at the University of Calgary, which is part of the IOC Medical Research Network. He is also a founding member of the Concussion in Sport Group and Co-Chaired the 5th International Consensus Conference on Concussion in Sport. He currently serves as a Senior Associate Editor of the British Journal of Sports Medicine - Injury Prevention and Health Protection.

Prof Tim Meyer

Prof Tim Meyer completed his MD and his MA in sport science at the universities of Hanover and Göttingen, Germany. Meyer wrote his doctoral thesis about the therapeutic efficacy of endurance training in panic patients (1997). His habilitation thesis at the University of Saarland was about applications of gas exchange measurements (2006). In 2007 he became chair of the Institute of Sports Medicine, University Paderborn. In October 2008 he was called as chair of the Institute of Sports and Preventive Medicine of Saarland University. Meyer's main areas of research are clinical exercise physiology, recovery and training prescription with a special focus on football. Under his supervision, several training studies were conducted in elite and recreational athletes (altogether over 150 publications in internationally referenced peer-reviewed journals). Besides his university work, Meyer has worked as team physician for the German soccer association (DFB) since 2001 as part of the



national squad's medical service team. Finally, he is chair of the medical committee of the German FA and member of the UEFA medical committee.

Dr James Miller

Dr Miller practices Family Practice and Sports Medicine in Midlothian, Virginia in a private practice, Family Practice Specialists of Richmond, P.C., which he founded in 1994. He holds the position of Associate Clinical Professor at the University of Virginia remaining active in teaching medical students. He has travelled extensively as a National Team Physician for USA Swimming starting in 1998. He is a member of the Federation Internationale de Natation (FINA) Sports Medicine Committee, now in his 3rd four-year appointment. Within the FINA SMC he serves as the Editor of Sports Medicine for the *FINA Aquatics World Magazine*. He is chairing the Cardiology sub-committee and leading the Illness and Injury study for World Championships for FINA. He lectures internationally on topics of Sports Medicine, publishes in internationally circulated magazines and textbooks. He travels extensively working as the FINA Medical officer and Doping Control Delegate for international FINA aquatic sports events. Dr Miller has been active in Masters swimming for many years. He is a past President of U.S. Masters Swimming, where he has held many additional roles, including chairing the organization's Sports Medicine Committee. He also served on the Masters Technical Committee for Union Americana de Nacion (UANA), the Continental Organization for aquatic sports, and is currently on the UANA Sports Medicine Committee. His involvement with Masters swimming spans all aspects of the discipline, as a coach, leader, and athlete. Known as "Dr Jim" by many Masters swimmers in the U.S., he is a trusted source of information and guidance on medical and physical aspects of the sport.

Dr Chris Milne

Dr Chris Milne is a Sports Physician in private practice at Anglesea Sports Medicine in Hamilton, New Zealand. He has been Team Doctor for NZ Olympic and Commonwealth Games teams from 1990 to the present, and was Team Doctor for the Chiefs Super Rugby team from 1997 to 2003. A Past President of the Australasian College of Sports Physicians, he has also served as National Chairman of Sports Medicine NZ. He has been Medical Director of Rowing NZ since 2002, and is currently Chair of the Medical Commission for Oceania National Olympic Committees. He has a longstanding interest in medical writing, and is a previous editor of the NZ Journal of Sports Medicine.

Prof Morten Moe

Morten C Moe is Head of Research at the Head & Neck Clinic and Professor at Department of Ophthalmology, Oslo University Hospital and University of Oslo. He has a broad surgical, medical and research experience regarding retinal diseases, and is a devoted teacher for both medical students, PhD students and residence in the field of ophthalmology.

Dr Nick Mohtadi

Dr Nicholas G. H. Mohtadi was born in Birmingham, England. He lived in England, Norway, and Trinidad and Tobago before settling in Canada in 1967. He attended Oklahoma City University on a tennis scholarship and returned to Canada and the University of Calgary where he obtained his MD in 1981. Dr Mohtadi took a year off of his medical career to play professional tennis culminating at Wimbledon in 1982. He completed his medical internship at the Royal Jubilee Hospital in Victoria, BC and went on to complete his postgraduate training in orthopaedic surgery at the University of Calgary, receiving his FRCS in 1987. Dr Mohtadi pursued subspecialty training in Calgary and the Alberta Children's Hospital followed by further fellowship training at the University of Western Ontario with Drs. Peter Fowler and Richard Hawkins in 1988-89. He received an Alberta Heritage Foundation Clinical Fellowship award to pursue a Masters Degree in Clinical Epidemiology at McMaster University in 1989-1990 under the supervision of Dr Gordon Guyatt. In 1990 he received the Diploma in Sport Medicine from the Canadian Academy of Sport Medicine. He joined Foothills Hospital Calgary in 1991 and has been at the Peter Lougheed Hospital since 1996. He currently holds the position of Clinical Professor in the



Department of Surgery, Faculty of Medicine and an Adjunct Professor in the Faculty of Kinesiology. He is the Co-Director of the University of Calgary Sport Medicine Centre and the Clinical Research Director of the McCaig Institute for Bone and Joint Health. He maintains a full surgical practice focusing on sports injuries and arthroscopic surgery. In addition, Dr Mohtadi continues to make significant research contributions that can be classified into three areas: 1) Randomized Clinical Trials 2) Outcome Measure Development and 3) Health Services Research. He is currently involved in doing a randomized clinical trial comparing techniques for ACL reconstruction. He is actively involved in the development of a hip joint quality of life outcome measure for young active patients with hip disease. More recently, he has developed a novel program to deliver care for patients with acute knee injuries. He holds grants from the CIHR, WCB Alberta and several local agencies. The recipient and co-recipient of several awards, Dr Mohtadi holds committee appointments with the International Society for Arthroscopy of the Knee Surgery and Orthopaedic Sports Medicine (ISAKOS) and the International Society for Hip Arthroscopy. He is a past president (2002-2006) of the Joint Orthopaedic Initiative for National Trials of the Shoulder (JOINTS Canada) and the Canadian Academy of Sport Medicine. He is on the editorial boards of the Clinical Journal of Sport Medicine, the American Journal of Sports Medicine, the Physician and Sports Medicine and the Journal of Sportorthopädie-Sporttraumatologie. Dr Mohtadi has volunteered at numerous sporting events as a physician and was the Head Team Physician and currently one of the orthopaedic surgeons for the Calgary Flames and the Chief Medical Officer for the Canadian Team at the 2003 Pan American Games.

Dr Christine Moseid

Christine Holm Moseid, born 220770, has been working as a medical doctor since 1998, graduating from the University of Bergen, Norway in 1997. She is a specialist in physical medicine and rehabilitation as well as in sports medicine. She has also worked as a general practitioner as well as a rheumatologist. She has been involved as a sports physician both at the elite, sub-elite and recreational level with athletes of all ages. She has worked as team-physician for the Norwegian Female Cross Country Skiing team. She is a member of the Norwegian board for Sports Physicians and also a board-member of the Society for Ethics and Ethical decision making in sports in the Norwegian Confederation of Sports. She defended her PhD on "Injury and illness in youth elite athletes" from the Oslo sports Trauma Research Center and the University of Oslo during the spring of 2020. She now works in SKADEFRI/Fittoplay, aiming to implement injury and illness prevention in youth sports by narrowing the gap between sports medicine research and sports in practice. The SKADEFRI/Fittoplay implementation model is based on both short term and long-term strategies. More specifically, the work involves several platforms such as social media, sport club events, coach educational programs, sports organizing committees and sport academy high school educational programs. Learn more about SKADEFRI/Fittoplay at Skadefri (fittoplay.org).

Dr Iñigo Mujika

Iñigo Mujika earned PhDs in Biology of Muscular Exercise (University of Saint-Etienne, France) and Physical Activity and Sport Sciences (University of The Basque Country). He is also a Level III Swimming and Triathlon Coach. He published 130 articles in peer reviewed journals, six books and 43 book chapters, and has given over 400 lectures and communications in international conferences and meetings. Iñigo was Senior Physiologist at the Australian Institute of Sport, Team Selector for Triathlon Australia, Head of Research and Development at Athletic Club Bilbao Professional Football Club, Physiologist of the Spanish and French Swimming Federations, Head of Physiology and Training at Euskaltel Euskadi World Tour Cycling Team. He is now Head of Sport Sciences and Performance Support at the Spanish Swimming Federation, Associate Professor at the University of the Basque Country, Associate Researcher at Finis Terrae University in Chile, and Associate Editor for the International Journal of Sports Physiology and Performance.

**Dr Iain Murray**

Iain Murray is a Consultant Orthopaedic Surgeon at Edinburgh Orthopaedics/Edinburgh Royal Infirmary and Honorary Senior Lecturer at The University of Edinburgh. He is a member of the UK Collaborating Centre for Injury and Illness Prevention in Sport (UKCCIIS) which is the newest of the IOC Centres of Research Excellence. The focus of his clinical practice is sports injuries and joint preservation. He undertook ACGME accredited clinical fellowship in Orthopaedic Sports Medicine at Stanford University where he served as Assistant Team Physician for the San Francisco 49ers NFL and Stanford Athletics. The central goal of his research is the clinical translation of regenerative therapies and in the prevention and treatment of sports injuries to the knee and hip. He undertook Wellcome Trust funded doctoral and postdoctoral training at UCLA Orthopaedic Hospital Research Center, and at the MRC Scottish Centre of Regenerative Medicine. He has been awarded the United States Orthopaedic Research Society (ORS) New Investigator Recognition Award, the Syme Medal, the Neer Award for Basic Science and has been a British Orthopaedic Research Society Traveling Fellow. Iain serves on the Editorial boards of the Bone and Joint Journal (BJJ) and Bone and Joint research (BJR), and is a member of the International Society for Cellular Therapies (ISCT) musculoskeletal committee and the Biologics Association.

Dr Joske Nauta

Joske Nauta (PhD) holds a Master's degree in Human Movement Sciences and currently works as a senior researcher within both the department of Public and Occupational Health (Amsterdam UMC) and the School for Physical Education at the Amsterdam University of Applied Sciences. She successfully defended her PhD thesis on injury prevention in young children in 2015, and she has continued to be involved in youth injury prevention projects within different sports ever since. Beside her work in injury prevention, Joske is also involved in health promotion projects in different settings such as public playgrounds, in schools and in hospitals.

Prof Ian Needleman

Ian is Professor of Periodontology and Evidence-Informed Healthcare at University College London, Eastman Dental Institute, London UK. He leads the Centre for Oral Health and Performance (www.ucl.ac.uk/cohp) which was awarded recognition by the International Olympic Committee as part of the UK Research Centre for prevention of injury and protection of athlete health. He is also in specialist practice. Ian is a Cochrane Editor for Periodontal Health. His research has been awarded prizes by the European Federation of Periodontology, Royal Society of Medicine, German Periodontal Society, German Cochrane Centre and International Association for Dental Research. He was awarded the UCL Provost's Prize for Institutional Leadership in Public Engagement in 2017, and nominated as an inspiring teacher by UCL in 2007. During the pandemic he helped develop a Family Liaison Team service for UCLH Critical Care Unit which was awarded the 2021 Intensive Care Society Improvement Project Award and the UCLH Top quality patient Care award. Ian was a member of the International Olympic Committee, Scientific Committee for the 2014 Conference on Prevention of Injury and Illness in Monaco and a Faculty member for 2017. He has been a member of many international consensus Workshops in Periodontology and Implant Dentistry. He is a keen road and mountain runner when not injured.

Prof Jon Patricios

Prof Patricios (MBBCh MMedSci FACSM FFSEM (UK) FFIMS) has been in sports medicine practice for 27 years. He is currently Director of Waterfall Sports Orthopaedic Surgery in Johannesburg and Professor in the Faculty of Health Sciences, University of the Witwatersrand, Johannesburg where he leads the Wits Sport and Health (WiSH) Research Group. Jon is founder and Director of Sports Concussion South Africa, sports concussion consultant to World Rugby, a board member of the international Concussion in Sports Group and on the scientific committee for the International Consensus Conference on Concussion in Sport. Most recently he was co-chair of the International Consensus Conference on



Concussion in Sport, on the independent concussion advisory panel for the FIFA 2022 World Cup and appointed to the UEFA Head Injury expert Panel. He is a Fellow of the American College of Sports Medicine, the Faculty of Sports & Exercise Medicine (UK) and the International Sports Medicine Federation. He is an editor of the British Journal of Sports Medicine and served 2 terms as President of the South African Sports Medicine Association (SASMA).

Dr Babette Pluim

Babette Pluim, MD, MPH, PhD, is a Consultant in Sports and Exercise Medicine and Chief Medical Adviser of the Royal Netherlands Lawn Tennis Association. She is Team Physician of the Dutch Davis Cup and Fed Cup teams and Tournament Physician at the ATP and WTA tournaments in's Hertogenbosch and Rotterdam (the Netherlands). Dr Pluim is Deputy Editor of the British Journal of Sports Medicine, a member of the ITF Sport Science and Medicine Commission and served for 8 years on the WADA Health, Medical and Research Committee. In 2015, she served as member of the IOC expert panel on the Saturated Sports Calendar. Dr Pluim has written more than 70 peer-reviewed publications, has a PhD thesis on "The Athlete's Heart" and a Masters in Public Health. She is author of the book 'From Breakpoint to Advantage: a Practical Guide for Optimal Tennis Health and Performance' with Marc Safran. In 2009 the Dutch edition was published, entitled 'Ace or Brace - a Handbook for Healthy Tennis'.

Dr Tonje Reier-Nilsen

Education: Medical degree (MD) 2001, specialist in pediatrics 2011, allergology in 2016 and sports medicine in 2020. Ph.D. in in allergology 2019. Tonje Reier-Nilsen has been a consultant since 2011 and researcher since 2014 at the Department of Pediatrics, section for Allergy and Lung Diseases, Rikshospitalet, Oslo University Hospital. Here, she is has been subject manager for asthma since 2019. She also serves on the board of the Norwegian Asthma and Allergy Association. Additionally, she has been employed by Olympiatoppen, National Olympic Training Centre since 2018, where she is subject manager in breathing problems of the athlete.

Dr William Roberts

Dr William Roberts, MD, MS, FACSM, is a Professor in the Department of Family Medicine and Community Health at the University of Minnesota Medical School and Program Director at University of Minnesota St Johns Family Medicine Residency in St Paul, MN. His special medical interests are in sports medicine and he has a sub-specialty certificate in Sports Medicine, is a Fellow, Past President, and Past Foundation President of the American College of Sports Medicine; a charter member of the American Medical Society of Sports Medicine; a founding member and past President of the American Road Race Medical Society (transitioning to the International Institute of Race Medicine); Editor in Chief for Current Sports Medicine Reports; an Editorial Board Member of Medicine and Science in Sports and Exercise, British Journal of Sports Medicine, and Clinical Journal of Sport Medicine; the Medical Director for the Twin Cities Marathon; the Chair of the Sports Medicine Advisory Committee for the Minnesota State High School League; and a member of the USA Soccer Cup Tournament Sports Medicine Advisory Committee. His research is in ice hockey and marathon related illness and injury. He has authored many research and educational publications in sports medicine, and has presented nationally and internationally on sports medicine topics.

Dr Marcus Robinson

Dr Marcus Robinson is a former engineer and a current Sport Medicine Physician practicing in Calgary, Canada. He earned his first degree in Materials Engineering from the University of British Columbia. Dr Robinson then pursued a Master's Degree in Biomechanics and Biomechanical Engineering before completing Medical School at UBC, his residency in Family Medicine in Calgary, and a fellowship in Sport and Exercise Medicine in Calgary. As a Sport Medicine Physician, he is the Team Physician for the Calgary Roughnecks professional lacrosse (2014 – present), former Team Physician for the Calgary



Stampeders professional Canadian football (2015 – 2017), Team Physician for the Calgary Hitmen hockey team (2015 – present), and Team Physician for Cavalry FC (2021 – present). He has also been part of the core medical team for multi-sport games including the PanAm Games (Toronto 2015), FISU World University Games (Taiwan 2017, Korea 2015, China 2011), and Canada Games (Prince George 2015, Sherbrooke 2013). In his spare time, Dr Robinson enjoys collecting 60's soul records, cycling mountain passes, and running marathons.

Prof John Saxton

John Saxton is a Professor of Clinical Exercise Physiology and Head of the Department of Sport, Health and Exercise Science at the University of Hull. He is a Fellow of the British Association of Sport & Exercise Sciences, member of the Physiological Society and has served on Council for the Society for Research in Rehabilitation. His research mainly focuses on the effects of exercise and pragmatic lifestyle interventions (involving exercise and dietary behaviour change) on wide-ranging health outcomes in people living with and beyond cancer. He has led randomised controlled trials with breast, prostate, bladder and colon cancer patients and as principal investigator or co-Investigator, his work has been supported by Cancer Research UK, the American Institute of Cancer Research, the Prostate Cancer Charity, Yorkshire Cancer Research and the NIHR-HTA. He is currently Co-Chief investigator for the *PREPARE-ABC* trial, a multicentre randomised controlled trial which is investigating the clinical and cost-effectiveness of pre- and post-operative exercise programmes on short- and longer-term health outcomes in patients undergoing colorectal cancer surgery. In 2010 he was the lead editor of a book entitled *Exercise and cancer survivorship: impact on health outcomes and quality of life*, published by Springer Scientific (New York).

Dr Kathrin Steffan

Kathrin Steffen, PhD, is a senior researcher at the Oslo Sports Trauma Research Center (OSTRC) at the Norwegian School of Sport Sciences. Besides her studies in Norway, she has a Master degree from The German Sports University in Cologne (Diplom Sportwissenschaft). Her primary research field is sports injury prevention, with focus on young athletes and ACL research. Presently, she leads the outreach activities of the OSTRC. Kathrin also works as a research assistant at the Department of Medical & Scientific Activities in the International Olympic Committee (IOC), where she is enrolled in the injury & illness surveillance programs during Olympic Games. Together with Professor Lars Engebretsen, she serves as an editor for the four annual IOC-supported issues of the British Journal of Sports Medicine - Injury Prevention and Health Protection. Kathrin is a former tennis player and enjoys much her "comeback".

Dr Mark Stuart

Mark Stuart, BPharm, FFRPS, FRPharmS, is the pharmacist to the International Olympic Committee Medical and Scientific Commission Games Group. He is also a member of the WADA Prohibited List Expert Group, and pharmacist member of the European Olympic Committees Medical and Anti-Doping Commission. Mark was the Head of Pharmacy for the London 2012 Olympic and Paralympic Games, and has worked in other pharmacy and anti-doping roles for the Sydney 2000, Athens 2004, Turin 2006, Beijing 2008 Olympic Games, Manchester 2002, Melbourne 2006, Glasgow 2014, Gold Coast 2018 Commonwealth Games, Baku 2015 European Games, and London 2017 World Athletics Championships. Mark is currently the Operations Development Manager for the International Testing Agency in Lausanne, Switzerland.

Prof Jorunn Sundgot-Borgen

Professor Jorunn Sundgot-Borgen (PhD) is Professor in Physical Activity and Sport at the Department of Sports Medicine, the Norwegian School of Sport Sciences, Norway. Her research fields include Sports Medicine, female elite athletes' health and performance, prevention and treatment of eating disorders, RED-s, adolescent athletes, pregnancy and exercise in elite athletes. Jorunn was a



Consultant for The Norwegian Olympic Training center (1995-2004) and Head of the Nutrition department at The Norwegian Olympic Training center (2004-2009). She was a Visiting Scholar (2003-2004) and visiting Professor (2010, 2011, 2013) at UC Berkeley. She is President of The Norwegian Eating Disorder Society (2013-), Vice president the Norwegian Council of Physical Activity (2009-2012) and the Nordic Eating Disorder Society (2013-). She is an ACSM Fellow, an ACSM Trustee and Honorary Fellow of the Faculty of Sport and Exercise Medicine, RCPI and RCSI. Jorunn has been a member of the IOC Working Group on The Triad and the RED-s since 2005. She is the author of about 200 international journal articles and book chapters. In 2013 she was awarded for Excellence in Communication of Science by The Norwegian Research Council. Practical activities in sports include acting as Consultant for elite athletes with eating disorders in all sports. Jorunn is a former Norwegian national team gymnast.

Dr Johannes Tol

Dr Hans Tol is a Dutch trained Sports Medicine Physician specialising in medical management of tendon and muscle injuries. Dr Tol is a senior associate editor of the British Journal of Sports Medicine and has published extensively in international peer-reviewed journals. He did his PhD on the etiology, diagnosis and arthroscopic treatment of the anterior ankle impingement syndrome with Professor Niek van Dijk in Amsterdam. He initiated and/or supervised multidisciplinary PhD projects on groin injury, Achilles tendinopathy (including platelet rich plasma), medial tibial stress syndrome, hamstring injury and injury epidemiology. Besides his clinical work and research projects, he carried out extensive sports medical fieldwork through positions in two professional soccer clubs and, on an incidental basis, National Baseball, National Handball team, the Dutch Squash and Golf Association. Since 2004 he worked for the Royal Dutch Football Association and since 2008 he was assigned as Sports Physician of the U21 National Soccer Team. From 1982-1988 he played in the highest youth and U21 teams of a Dutch professional premier league soccer team.

Dr Bruce Twaddle

Dr Bruce Twaddle is an internationally renowned and respected orthopedic surgeon with subspecialty training in Sports Surgery and Orthopedic Trauma. He is experienced with all soft tissue and joint injuries of the knee, shoulder, elbow, foot, and ankle. He joined the faculty at the UW Department of Orthopaedics and Sports Medicine in the spring of 2013 and currently serves as the Chief of Orthopaedic Sports Medicine at the UW Medicine Sports Medicine Center at Husky Stadium. He attended the University of Auckland Medical School in Auckland, New Zealand, and completed the Australasian College of Surgeons Orthopaedic training program in 1993. He was an Orthopaedic Trauma Fellow at Harborview Medical Center in 1994/1995 and has maintained links with the University of Washington ever since. His subspecialty training included postgraduate fellowships in Knee Surgery with Barry Tietjens, Orthopaedic Trauma at the Harborview Medical Centre in Seattle and Sports Surgery at the Fowler Kennedy Sports Medicine Clinic in London, Ontario. He was appointed to the staff at Auckland Hospital in 1996 where he was the Director of Orthopaedic Trauma. He has been actively involved in Orthopaedic teaching and education and has been involved in the AO trauma education community since 1996. He was the youngest ever trustee of AO International in 1999 and has been a member of the ISAKOS sports medicine committee. In 2003 he became the Director of Orthopaedics Trauma at Auckland Hospital and has served as a consulting physician and team physician for several New Zealand sports teams. Dr Twaddle was a founding partner of UniSports Clinic in Auckland and co-founder of the Adidas Sports Medicine Centre, a FIFA Centre of Excellence. His clinical interests include complex articular trauma, tendon injuries and their treatment, osteotomy surgery, stress fractures and multiple ligament knee injuries. Dr Twaddle's extensive sports medicine experience includes: Fellowships completed in knee surgery, orthopaedic trauma, and sports orthopaedic surgery, in Auckland, Washington and Ontario; 1998 recipient of the Western Pacific Orthopaedic Association Sports Medicine Traveling Fellowship to USA; Lecturer, Department of Orthopaedics, University of Auckland; Consultant Orthopaedic Surgeon to the New Zealand National



and New Zealand Breakers Basketball Team, 2010 and 11 ANBL Champion; Author of many orthopaedic and sports medicine book chapters. Research interests include ongoing research and publications relating to the knee, shoulder, ankle, and tendon injury and treatment and methods of improving exercise recovery and return to sport after injury.

Dr JWR Twisk

Jos Twisk studied human movement sciences in Amsterdam and after his graduation he moved to epidemiology and from that into applied statistics. He specialised himself in the methodological field of longitudinal data analysis and multilevel/mixed model analysis and wrote three textbooks about it (all published by Cambridge University Press). Besides that, he wrote a textbook about applied biostatistics (in Dutch). He is also program director of the Epidemiology master programme in Amsterdam and he is head of the expertise centre of applied longitudinal data analysis. His main activities are teaching (courses in mixed model analysis, longitudinal data analysis, multilevel analysis and applied basic statistics), consulting, and applied methodological research. He (co-) authored more than 1000 peer reviewed international papers.

Dr Hidde van der Ploeg

Hidde van der Ploeg obtained his PhD at the VU University Amsterdam in 2006 and is currently associate professor at the Department of Public and Occupational Health and the EMGO Institute for Health and Care Research of the VU University Medical Centre in Amsterdam. He also has an adjunct position at the Sydney School of Public Health of the University of Sydney in Australia. His expertise is in physical activity and sedentary behaviour research and includes measurement, surveillance, epidemiology and lifestyle interventions across clinical, occupational and public health settings.

Dr Alan Vernec

Dr. Vernec has been the medical director of the World Anti-Doping Agency since 2009. He is a graduate of the University of California, San Diego (Bioengineering) and Canada's McGill University (Medicine). Dr. Vernec has extensive experience working as a sport physician at many levels including acting as the team physician for many professional and national sport teams in professional soccer (football), national Athletics and Judo teams and at numerous international sport events including three Olympic Games. He has a passion for sport and believes that it should be inclusive while ensuring that athletes engage in fair competition. It takes the collaborative efforts of many in the international sport and medical communities to tackle the challenges in the Anti-Doping field to provide the best possible sporting environment.



APPENDIX 4: ASSESSMENT

The assignments that students are required to complete as part of the program are designed to enhance student learning and to enhance various practical skills. All assignments are completed and submitted electronically. Students complete two assignments in Year 1 and two in Year 2 as well as a written exam paper at the end of each year. Students receive detailed feedback on their assignments

Students who achieve a pass with a mark of at least 50% in both Parts of the program are eligible to graduate with the IOC Diploma in Sports Medicine. Students who achieve an average mark of 75% or more over the two years will graduate with Distinction.

Assignments: Part 1

- | | |
|----------|--|
| Module 3 | Evidence-based practice
This module offers an opportunity to study in depth a topic where there is currently some controversy, to identify appropriate information resources, and to produce a reasoned evaluation of the available evidence. |
| Module 6 | Research paper analysis and critique
Students provided with a reference to a recently published paper, and their task is to provide a critique of the paper within a tight word limit of 1000 words. This should include a summary of the key elements of the methodology, data analysis and interpretation of results, including any limitations in the experimental design, data analysis or in the interpretation of the results. A take-home message for the Team Physician should be included. |

Assignments: Part 2

- | | |
|----------|--|
| Module 3 | Evidence-based practice
Students are provided with a scenario that must be expanded upon. In 2016, this was as follows:
"You have been appointed as Team Doctor for your country's team for the 2018 Summer Youth Olympics. You can see information on the Games at https://en.wikipedia.org/wiki/2018_Summer_Youth_Olympics .
The problem of athletes unable to compete because of injury was highlighted as a key issue at the debrief from the 2014 Games and a major part of your remit is to put in place an injury prevention and rehabilitation program targeted specifically at young athletes who are potential members of the Team in 2018. This process has not yet begun, and to secure the necessary funding, you are required to prepare a briefing document that will convince the management board of the need for such a strategy and of the main elements of your program. This should include a brief overview of current issues and of the resource implications as well as of the strategy itself. It is important that you highlight how this will differ from the strategy that is in place for the senior Olympic team." |
| Module 6 | Research Paper analysis and critique
As for Year 1 |

Examinations

Year 1



Students complete an online examination at the end of Year 1. This consists of 25 multiple choice questions and 4 short answer questions. This is an “open-book” examination. An aggregate mark of 50%, with a mark of at least 40% in both assignment and examination components, is required to progress to Year 2 of the program. Students who fail to achieve a satisfactory performance have an opportunity to complete an additional assignment or to resit the examination as appropriate.

Year 2

At the residential workshop held at the end of Year 2, students are required to complete a written exam under examination conditions. This exam consists of 25 multiple choice questions and 4 essay-type questions. An aggregate mark of 50%, with a mark of at least 40% in both assignment and examination components, is required for successful completion of the program. Students who fail to achieve a satisfactory performance have an opportunity to complete an additional assignment or to resit the examination as appropriate.

Academic assessment of the IOC Diploma in Sports Medicine

This is an academic assessment of the scope and content of the IOC Diploma, as a basis for integration into the Executive Master of Sports Medicine at NIH as 20 ECTS credits. §9-2 in the Act relating to universities and university colleges (Universitets- og høyskoleloven) states that universities and university colleges may approve education from Norwegian institutions that are not regulated by this Act, foreign education that is not higher education, and documented prior learning as part of a student's education at the institution if the student has achieved a learning outcome equivalent to that set for the relevant study programme at the approving institution.

1. Overview of the program

The IOC Diploma in Sports Medicine is a postgraduate, part-time distance learning program delivered over **two academic years**. The program is awarded by the **International Olympic Committee (IOC)** and is designed for qualified medical doctors working within sports and exercise medicine.

The primary objective of the program is to provide advanced, research-informed and clinically relevant competence in sports medicine, with particular relevance to athletes at elite and sub-elite levels, while also addressing the role of physical activity in health promotion.

Upon successful completion of all academic and practical components, candidates are awarded the **IOC Diploma in Sports Medicine**.

The program is delivered in **English** and requires documented English proficiency for admission.

2. Teaching, learning and organisation

The program is organised as a flexible distance-learning program, enabling candidates to combine full-time clinical practice with structured postgraduate studies. The teaching and learning methods include:

- Computer-based lectures with integrated audio and video.
- Interactive elements and self-assessment tasks.
- Electronic access to comprehensive reading materials, including core textbooks and a subscription to the *British Journal of Sports Medicine*.

- Monthly online meetings (Zoom) with peers, program directors and Academic Advisory Board members.
- A mandatory **residential workshop in Year 2**, consisting of seminars, tutorials, practical sessions and final examinations.

The program design ensures systematic progression, continuous academic engagement and alignment between learning activities, learning outcomes and assessment.

Full Curriculum: <https://www.sportsoracle.com/course/ioc-diploma-in-sports-medicine/program-details/curriculum-content/>

3. Academic anchoring and governance

The IOC Diploma in Sports Medicine is developed under the authority of the **IOC Health, Medicine and Science Commission** and administered by **Sportsoracle Ltd**.

Academic governance and quality assurance are ensured through an international **Academic Advisory Board (AAB)**, consisting of approximately **20 internationally recognised professors and senior clinicians** within sports medicine and related disciplines.

The AAB is responsible for:

- Curriculum design and revision.
- Academic standards and coherence.
- Quality assurance of teaching and assessments.
- Moderation of student performance.

This structure ensures that the program is academically anchored in an internationally recognised expert environment, consistent with expectations for postgraduate education at master level.

4. Scope, duration and workload

The program has:

- A total duration of **two years (part-time)**.
- An estimated workload of approximately **800 hours**, distributed across lectures, reading, assignments, examination preparation and practical activities.
- A syllabus comprising **82 e-lectures**, developed specifically for the program by **67 internationally recognised faculty members**.

The workload, academic depth and progression correspond to advanced postgraduate studies and are comparable to the taught component of a master's degree program.

5. Learning outcomes at Master Level (NQF Level 7)

The learning outcomes are aligned with the **Norwegian Qualifications Framework (NKR) Level 7** and demonstrate that the program achieves master level competence:

Knowledge

Graduates have:

- Advanced knowledge of sports and exercise medicine.
- In-depth understanding of theories, concepts and methods within injury epidemiology, exercise physiology, rehabilitation and athlete health.
- Insight into the scientific basis of evidence-based practice in sports medicine.
- Ability to analyse sports medicine within historical, professional and societal contexts.

Skills

Graduates can:

- Critically analyse and synthesise research literature and clinical evidence.
- Apply theory and methods to complex and novel clinical problems.
- Use relevant research methodologies and evidence-based approaches.
- Independently solve practical and theoretical challenges.
- Conduct limited research and development work under supervision.

General Competence

Graduates demonstrate:

- Ethical awareness in clinical and research practice.
- Ability to communicate advanced professional knowledge.
- Interdisciplinary understanding and collaboration.
- Capacity for innovation and contribution to professional development in sports medicine.

These outcomes correspond to expected learning outcomes for a master's degree according to the NKR.

6. Assessment and examination

The assessment system is designed to ensure constructive alignment with learning outcomes and includes:

- **Two written assignments in each year** (four in total), contributing **50%** of the final grade.
- A written examination at the end of each year:
 - Year 1: Online open-book examination (MCQs and short answers).
 - Year 2: Supervised written examination during the residential workshop (MCQs and essay questions).
- Minimum requirement for progression and completion:
 - **≥ 50% overall**, and
 - **≥ 40%** in both assignment and examination components.

Students receive detailed written feedback on all assignments. Opportunities for reassessment are provided in line with formal regulations.

Grades:

- Pass: **≥ 50%**
- Distinction: **≥ 75%**

The assessment system ensures validity, reliability and transparency consistent with master level standards.

7. International recognition and prior learning

The IOC Diploma in Sports Medicine is an internationally recognised postgraduate qualification awarded by the International Olympic Committee. The program has a global recruitment base and is completed by physicians from a wide range of countries, supporting international competence development in sports medicine.

The IOC Diploma in Sports Nutrition has previously been recognized by several universities as prior learning qualifying for conversion into a master's degree, including institutions in: United Kingdom, Australia, USA, New Zealand. This demonstrates established academic credibility and international acceptance of the IOC Diploma program as postgraduate-level education.

8. Relevance to working life and further studies

Candidates are practising physicians throughout the program. The content and assignments are directly linked to clinical challenges in sports and exercise medicine, ensuring strong relevance to professional practice.

The program provides a robust academic foundation for:

- Advanced clinical roles in sports medicine.
- Leadership within athlete health services.
- Further academic studies, including a possible progression to **PhD education**, particularly when combined with a master thesis.

9. Justification for recognition as equivalent to 20 ECTS credits at master level

Based on NOKUT accreditation criteria and institutional requirements, the IOC Diploma in Sports Medicine can be recognised as equivalent to **20 ECTS credits** at master level due to:

- Its **two-year duration** and substantial workload.
- Learning outcomes aligned with **NKR Level 7**.
- Rigorous and diversified **assessment system**.
- Strong **international academic governance**.
- Documented **recognition by higher education institutions** internationally.
- Admission requirement of a completed **MD degree**.

10. Faculty and academic advisory board

The academic quality of the IOC Diploma in Sports Medicine is underpinned by an extensive international faculty and Academic Advisory Board consisting of leading experts in sports medicine and related disciplines. Teaching and academic oversight are provided by professors and senior clinicians from internationally recognised institutions.

Program Directors

- **Professor Lars Engebretsen, MD, PhD (Norway)** – Professor Emeritus, Orthopaedic Surgery; former Head of Medical Sciences, IOC.
- **Professor Ron Maughan, BSc, PhD (UK)** – Honorary Professor, University of St Andrews; Director, Sportsoracle Ltd.

Members of the academic advisory board include (selection):

- Professor Roald Bahr (Norway) – Sports injury prevention, OSTRC.
- Professor Karim Khan (Canada) – Research and education, Aspetar.
- Professor Michael Kjaer (Denmark) – Exercise physiology and rheumatology.
- Professor Jon Karlsson (Sweden) – Sports traumatology and orthopaedics.
- Professor Gino Kerkhoffs (Netherlands) – Evidence-based sports medicine.
- Professor Martin Schwellnus (South Africa) – Sports and exercise medicine.
- Professor Margo Mountjoy (Canada) – Aquatic sports and athlete health.
- Professor Antonio Pelliccia (Italy) – Sports cardiology.
- Professor Claudia Reardon (USA) – Sports psychiatry and mental health.
- Dr Niall Elliott (UK) – Elite sports medicine practice.
- Dr Marie-Elaine Grant (Ireland) – Physiotherapy and rehabilitation.
- Dr Hideyuki Koga (Japan) – Knee surgery and injury prevention.
- Dr Andrew Murray (UK) – Medical and scientific leadership in elite sport.
- Dr Mike Wilkinson (Canada) – Professional team medicine.

In total, the program involves **over 60 internationally recognised lecturers and contributors**, representing a breadth of expertise across orthopaedics, cardiology, psychiatry, physiology, rehabilitation, epidemiology, nutrition and injury prevention.

This ensures that the program is delivered and governed by a professional community of the highest international standard.