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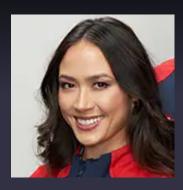
MEET THE SPEAKERS & PANELISTS OF PCC 2023

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# KEYNOTE SESSION: Why Effective Anti-Doping Programs Matter to Athletes



**Evan Bates**Olympian



Madison Chock
Olympian

Madison Chock and Evan Bates formed an unlikely duo from the start. Prior to their partnership forming in 2011, they competed against each other. Both were Junior World Champions with their previous partners and trained under the same coach in Michigan. But when Evan suffered a severed Achilles tendon and Madi's partner unexpectedly retired, both began searching for new partners. They didn't have to look far. The answer to their search was already in the building.

Madi and Evan built their partnership on a special chemistry they felt when they skated together. They shared a love for skating and a sense of joy on the ice that had them laughing through most of their training sessions. Success didn't come right away, but the enjoyment of their new partnership was the foundation for what was to come. After making their Olympic debut in Sochi in 2014, they won their first National title and a World silver medal in 2015. They were one step from the top of the World podium and achieving their dream of becoming World Champions. They had their sights set on winning gold at the PyeongChang Olympics in 2018, but the next few years proved to be challenging.

During the lead up to the 2018 Olympics, Madi suffered an ankle injury. Doctors recommended surgery to repair chipped bone fragments in her ankle. Despite the injury, Madi delayed surgery and competed the Olympic season, but the results weren't what they hoped for. Hoping to medal at the Games, they fell in the middle of their free dance and finished a disappointing ninth place. Following disappointment in PyeongChang and Madi's recovery from ankle surgery, Madi and Evan decided to move from their home base in Michigan to Montreal where they would begin training with Canadian coaches, Marie-France Dubreuil and Patrice Lauzon. The new chapter reinvigorated their joy for skating that had waned during the difficult years. They once again became National Champions, five years after their first title. It was the longest stretch between titles in US Figure Skating history.

The following year Madi and Evan made history at the Beijing Olympics as part of the silver medal-winning US Figure Skating team. Madi and Evan competed at the World Championships one month later and returned to the podium for the first time in six years. It was a record in their sport for the longest amount of time between World medals and a testament to the perseverance that has defined their career.

This past March, Madi and Evan were in Japan competing at their 10th World Championships together. They succeeded in achieving their goal of becoming World Champions. They became the first Ice Dance team in their 30s to win a World title, and just the second Americans to ever do so. Their career has been marked by longevity and perseverance, and they aren't finished yet. They plan to continue sharing their joy for skating with audiences around the world, only now as an engaged couple. Together they have competed in three Olympic Games (2022 - Silver Medalist Team Event, '18, '14), 10 World Championships (World Champions - 2023), 12 U.S. Championships (Gold Medalists - 2023, '22, '20, '15), and seven Four Continents Championships (Gold Medalists - 2023, '20, '19).



# Moderator: Mr. Ryan Murphy, Partnership for Clean Competition (PCC)

Ryan Murphy started as the Executive Director for the Partnership for Clean Competition in November 2021. Prior to joining the Partnership for Clean Competition, Murphy was a Program Officer with the Sports Diplomacy division at the U.S. Department of State from 2009 - 2021. In this role, he directly oversaw the International Sports Programming Initiative (ISPI), the division's annual sports grant competition portfolio. Murphy was also previously the Senior Manager for Sport & Competition globally for Special Olympics International, working there from 2004 - 2009. In this role, he helped to develop sport resources available to the network of coaches and administrators around the world for Special Olympics. Murphy has also worked as an International Doping Control Officer for International Doping Tests & Management, from 2003 - 2015, conducting doping control tests (incompetition and out-of-competition) on athletes throughout the world.

# Investing in Anti-Doping Research: Reflecting on 15 Years of PCC Excellence and Beyond



#### Mr. Kevin Manara, Emeritus PCC Board of Governors Member

Kevin Manara has served as both and Officer and Director of the Partnership for Clean Competition. Manara was appointed Secretary of the PCC in 2010 and contributed in that capacity until 2020, when he was named the NFL's representative on the PCC Board. Manara participated on the PCC Board in 2020-21.

During his tenure with the PCC, Manara worked for the NFL for over thirteen years as a senior attorney in the Management Council, most recently as Vice President of Labor Relations & Policy. In that capacity, Manara administered the NFL CBA, provided legal advice to all 32 clubs on issues involving player employment, and enforced the League's policies on performanceenhancing substances, personal conduct and substances of abuse. Manara was responsible for all aspects of the NFL's anti-doping policy, including prosecuting appeals of discipline. He was a member of the NFL's bargaining team during negotiations that resulted in the 2011 and 2020 Collective Bargaining Agreements.

Most recently, Manara spent a year as Senior Vice President & General Counsel of the Las Vegas Raiders. In that capacity, he provided strategic advice and direction on all legal matters and crisis management to Raiders' management, ownership and employees. Among other responsibilities, Manara oversaw all litigation matters; ensured compliance with NFL rules, regulations and policies, including those related to the CBA, NFL player contracts and league hiring guidelines; participated in the hiring process for the new Head Coach, General Manager and football staff; advised the Club regarding all corporate matters and documents, including those related to the operation of Allegiant Stadium; and advised the Club on all employment and human resources matters.

Manara began his legal career as an associate in the Labor & Employment department at Proskauer. He also has experience working in licensing and marketing for the NBA. He graduated from Johns Hopkins University, where he played varsity football, and earned his law degree with honors from New York Law School.



# Mr. David Howman, Athletics Integrity Unit

David is a sport integrity consultant in Wellington. He is the Chair of the Athletics Integrity Board, having been reappointed to that position by the World Athletics Council in September 2019, the Chair of World Squash Ethics Commission, Deputy Chair of the International Tennis Federation Ethics Commission, and Chair of the International Cricket Council Anti-Corruption Oversight Group. David was a member of the Australian Government's Panel reporting on Sport Integrity in 2018 and holds the position of Adjunct Professor at AUT. Nationally he is Chair of the Board for Cricket Wellington and was the Reviewer responsible for the report on Gymnastics New Zealand.

David was Director General (more corporately named the CEO) of the World Anti-Doping Agency (WADA), from August 2003 until July 2016, and was instrumental in the shaping of WADA into a highly respected and unified global organization responsible for regulating and monitoring world sport and world governments

Prior to his time at WADA David practised as a barrister specialising in sport law, and represented many prominent NZ players, referees and coaches. He was Chair of Tennis NZ, Fair Play Citing Commissioner for NZ Rugby and SANZAR, and on the Boards of the Hillary Commission and NZ Sports Foundation. With a large experience of governance at both local and national levels in sport in New Zealand, accompanying his vast international expertise and management skills, David brings a unique leadership capacity to all matters he is engaged in. David received a CNZM for services to sport in 2017.



## Ms. Kacie Wallace, U.S. Olympic & Paralympic Committee (USOPC)

Kacie Wallace is the Team USA Athlete Ombuds. Since 2015, she has provided Team USA athletes with independent and confidential advice, assistance with resolving disputes, and advocacy for fair and transparent policies throughout the Olympic and Paralympic Movement.

Kacie teaches law school courses on the theory and practice of ombuds programs and assists organizations to establish effective conflict management systems. She spent the previous decade mediating sport and litigated matters, and teaching negotiation, mediation, and international conflict management at Duke University, the University of North Carolina, North Carolina Central University, and through Rotary International. Her interests include the narrative in conflict and she taught courses examining global conflict through the lens of documentary film and the utility of film as a tool of education, persuasion, and dispute resolution. She partnered with experts in the video gaming industry and won a digital innovation award from the MacArthur Foundation to build virtual training environments for NGOs, governments, and other agencies to simulate negotiation and coordination efforts necessary to address relief needs following large scale natural disasters. She also has designed exhibits for a children's museum, taught art therapy in a state psychiatric institute, and served as a uniformed patrol officer, hostage negotiator, and violence intervention counselor with Durham City Police Department.

Kacie received a bachelor's degree in art-design from Duke University, a law degree from North Carolina Central University, a master of laws in dispute resolution from Pepperdine University, and a certificate in documentary studies from Duke University. Her current curiosities include ocean sustainability, painting, storytelling, long-distance standup paddle boarding, and Italian culture.



# Moderator: Mr. Travis Tygart, U.S. Anti-Doping Agency (USADA)

Travis T. Tygart became USADA's Chief Executive Officer in September of 2007. Having originally joined USADA in 2002, he has also served as the Director of Legal Affairs and as Senior Managing Director & General Counsel, during which time he prosecuted cases on behalf of clean athletes before the American Arbitration Association and the Court of Arbitration for Sport.

As CEO, Tygart works closely with the USADA Board of Directors to carry out the organization's mission of standing with athletes to champion their right to clean sport, inspiring true and healthy sport, and promoting the integrity of sport. Tygart has also reached out and made himself available to many Olympic athletes, embracing them as an essential part of the fight against doping.

Having originally joined USADA in 2002, Tygart was actively involved in drafting the USADA Protocol for Olympic Movement Testing, and has testified on the use of performance-enhancing drugs in sport in front of various Committees of the U.S. Congress, including the Senate Committee on Foreign Relations. Internationally, Tygart has testified in front of Committees of the European Union, the German Parliament, and the French Senate about the issues surrounding doping in sport and creating effective anti-doping policy.

# Translational Research Impact - Blood Detection of Human Growth Hormone: Advancements & Hurdles



Dr. Andrew Hoofnagle, University of Washington

Dr. Hoofnagle is the Head of the Clinical Chemistry Division in the Department of Laboratory Medicine and Pathology at the University of Washington. He serves as the Chair of the Collagen Turnover Working Group of the PCC. His laboratory has helped pioneer the use of liquid chromatography-tandem mass spectrometry in the quantification of small molecule and protein biomarkers in clinical specimens. They are funded by the National Institutes of Health to develop and leverage analytical methods for nutrition, obesity, diabetes, cancer, Alzheimer's disease, kidney disease, and cardiovascular disease. They are also funded by the PCC to develop a novel method for the quantification of fragments of type III procollagen in human blood samples. In addition to his research activities, Dr. Hoofnagle mentors graduate students, post-doctoral fellows, and junior faculty and helps direct the clinical chemistry laboratories within UW Medicine.



### **Dr. Geoff Miller,** Sports Medicine Research Testing Laboratory

Geoff Miller completed undergraduate training at Wartburg College in Waverly, lowa and earned a Ph.D. in pharmaceutics and pharmaceutical chemistry from the University of Utah in 2015. He is currently the Assistant Laboratory Director at the Sports Medicine Research and Testing Laboratory (SMRTL) in Salt Lake City, where he works as the Director of the APMU and oversees the EPO testing, Growth Hormone testing, and research studies. Since beginning work at SMRTL in 2013, Geoff has served as a lead investigator for a variety of drug administration studies including testosterone, clomiphene, EPO, growth hormone, luspatercept, blood transfusions, and other Biological Passport-based studies. These projects have resulted in numerous publications, oral presentations, and contributions to global anti-doping scientific meetings and workshops.



#### Dr. Martin Bidlingmaier, Ludwig-Maximilians University, Munich, Germany

Martin Bidlingmaier is an MD and graduated from medical school in Munich, Germany, in 1993. Since then he has risen through the ranks at Munich University hospitals and got training in Internal Medicine, Endocrinology, Clinical Chemistry and Microbiology. Since 2003 Dr. Bidlingmaier is head of the Endocrine Laboratory and leads the Neuroendocrine Research Group at the Department of Internal Medicine IV.

His research interests include development and validation of laboratory methods for pituitary and adrenal hormones, physiology, pathophysiology and biomarkers of GH action, and endocrine aspects of doping in sports.

Dr Bidlingmaier is a member of various national and international associations such as the German, the European and the US Endocrine Society. He is secretary of the international Growth Hormone Research Society (GRS), and chairs the Sections for Endocrine Laboratory Diagnostics for both, the German Endocrine Society (DGE) and the German Society for Clinical Chemistry and Laboratory Medicine (DGKL). Dr. Bidlingmaier also is a scientific advisor of the German Reference Institute for Bioanalytics (RfB). Between 2011 and 2019, he served as a member of the World Anti-doping Agencies (WADA) Prohibited List Expert Group, and is a current member of WADAs Endocrine working group. In addition, he is a member of the German National Anti-Doping Agencies (NADA) Commission for the Doping Control System.

Dr. Bidlingmaier is author of more than 340 articles in peer-reviewed journals which were cited 13,349 times (hindex 60). He served on the editorial boards of scientific journals including The Journal of Clinical Endocrinology and Metabolism, GH&IGF Research, Molecular Metabolism and Drug Testing & Analysis, and currently is an editor of Pituitary.



#### Moderator: Dr. James Dalton, Co-Chair, PCC Scientific Advisory Board

James T. Dalton, Ph.D. is Executive Vice President and Provost at the University of Alabama. Dr. Dalton previously served as Dean and Professor of Pharmaceutical Sciences in the College of Pharmacy at the University of Michigan from 2014 to 2020. He received his Bachelor of Science in Pharmacy from the University of Cincinnati (1986) and Doctor of Philosophy in pharmaceutics and pharmaceutical chemistry from Ohio State University (1990). Dean Dalton rose through the faculty ranks in the Department of Pharmaceutical Sciences in the College of Pharmacy at the University of Tennessee (1992-2000) before returning to Ohio State where he served as Professor and Chair in the Division of Pharmaceutics (2000-2007). He began an entrepreneurial leave of absence from Ohio State in 2005 and finally left OSU in 2007 to devote his full-time effort as Chief Scientific Officer at GTx, Inc. in Memphis, TN (2007-2014). He is an elected member of the National Academy of Medicine (NAM) and is a Fellow of the American Association for the Advancement of Science (AAAS) and American Association of Pharmaceutical Scientists (AAPS). He has co-authored over 300 original abstracts and peer-reviewed scientific manuscripts and is an inventor on over 400 United States and international patent applications related to selective androgen receptor modulators and other new drugs.

# **Building Anti-Doping Science Careers - Perspectives from PCC Fellows**



Dr. Sara Solheim, Norwegian Doping Control Labortory

Sara is an exercise physiologist and a PCC Postdoctoral Fellow in a joint position at the Norwegian School of Sport Sciences and the Norwegian Doping Control Laboratory. She completed her B.Sc. in Sport Science at Norwegian School of Sports Sciences, and her M.Sc. and Ph.D. in Human Exercise Physiology and Doping Analysis at the University of Copenhagen. The Industrial Ph.D. was carried out in a collaboration involving Anti Doping Denmark and the Norwegian Doping Control Laboratory, partly funded by the PCC. After finishing her Ph.D. in 2020, Sara worked as a Scientific Manager at Anti Doping Denmark, before being awarded a PCC Fellowship in 2022.

Sara's primary research activities are related to individual differences in human physiology and the understanding of human exercise performance, its limitations, how it can be manipulated and how such manipulations can be detected. One central theme is the further development of anti-doping blood testing with a specific focus on the Athlete Biological Passport and Dried Blood Spot testing. The aim is to develop and evaluate innovative, more time- and cost-effective and athlete-friendly approaches for testing and deterring the use of prohibited substances and methods.



# Dr. Jenna Goodrum, Sports Medicine Research Testing Laboratory

After completing her PhD in biochemistry, Dr. Goodrum was selected as a PCC Fellow in 2022 and is completing her fellowship at the WADA-accredited Sports Medicine Research and Testing Laboratory in Salt Lake City Utah. Under the guidance of past PCC fellow Dr. Geoffrey Miller, Dr. Goodrum is broadening her knowledge in all areas related to anti-doping testing as well as conducting innovative research with the goal of advancing knowledge in the anti-doping field.



### Dr. Federico Ponzetto, University of Turin

Dr. Federico Ponzetto, after graduating as a chemist at the University of Turin in 2014, completed his PhD thesis in Life Sciences at the University of Lausanne under the supervision of Prof. Martial Saugy and working at the WADA-accredited Swiss Laboratory for Doping Analyses in 2019 (Lausanne, Switzerland). During his PhD he carried out various research works focusing on the development of analytical methods for the measurement of endogenous steroid hormones in biological fluids, contributing to the advancement of Blood Steroid Profile.

In 2020, he obtained a fellowship from Partnership for Clean Competition and joined the research group of Endocrinology, Diabetes and Metabolism at the University of Turin managed by Prof. Ezio Ghigo. He has recently carried out a research project entitled "Implementation of a blood steroidal module in the framework of the Athlete Biological Passport" aiming at developing innovative technologies for steroid measurements in blood and their application for investigating possible confounding factors of the recently introduced Blood Steroid Profile.

Currently, he has become research fellow at the Department of Medical Sciences of the University of Turin and is running a research project dedicated to the establishment of a novel steroidomic analytical platform for the investigation of steroidal compounds' concentrations in three relevant biological matrices such as blood, urine and saliva. Such a platform will be used to characterize the steroidal asset in physiological conditions as well as in rare and chronic non-communicable endocrine diseases.

The interests and expertise of Dr. Ponzetto focus on new emerging sample preparation techniques as well as on the development of analytical methods for the identification/quantification of endogenous as well exogenous steroids in biological fluids.



# Moderator: Dr. Laura Lewis, U.S. Anti-Doping Agency (USADA)

Laura Lewis, Ph.D., USADA Director of Science joined the USADA Science Team as of August 2020. Born in the UK, Laura moved to Australia in 2005 to begin a graduate training position in the Physiology department at the Australian Institute of Sport. She began a sports-based PhD in 2007, examining in the role of hemoglobin mass on cycling performance, with her research taking her to Europe and the US with the Australian National cycling team. Graduating in 2011, Laura continued to work as an applied sports scientist with Australia's aspiring Olympians from a range of sports including water polo, soccer and track and field. She maintained her research interests, particularly in Altitude and anti-doping, combining the two in 2014 during a challenging project at the Tour of Qinghai Lake in northern China. Laura worked as a Research Fellow at the Australian Institute of Sport and Australian Catholic University and was awarded a PCC grant in 2015 to study the combined effects of altitude and iron supplementation on the Athlete Biological Passport. She is a member of the WADA Hematological ABP working Group as well as an expert reviewer for a number of APMUs.

# Understanding the Dangers of Contamination from Foods & Dietary Supplements - Raw Ingredients to Off-the-Shelf Products



Dr. Amy Eichner, U.S. Anti-Doping Agency (USADA)

Dr. Amy Eichner received her PhD in Neuroscience from Australian National University in 2001 and continued in neuromedical research at various places including Harvard University and Massachusetts General Hospital. In 2008, she joined the Therapeutic Goods Administration in Australia to lead a laboratory in biocompatibility testing of medical devices. She has worked with the U.S. Anti-Doping Agency in the Drug Reference Department since 2009 on the Drug Reference Hotline, Global Drug Reference Online database, Therapeutic Use Exemptions, and Supplement Connect (formerly Supplement 411), and she is now the Special Advisor on Drugs and Supplements for USADA.



### Mr. John Travis, NSF International

John Travis has more than 25 years of experience as an analytical chemist specializing in the analysis of dietary supplements. As Senior Research Scientist at global public health organization NSF International, Travis analyzed dietary supplement products for various contaminants, emerging drugs and harmful compounds as well as verifying ingredient identity and label claims. He now is a Principal Technical Manager for the Dietary Supplements programs at NSF.

Utilizing a variety of analytical techniques, he has developed and validated analytical methods for the analysis of dietary supplements. He was instrumental in the development of the screening methods used for the NSF International Certified for Sport® program, which now screens products for more than 290 banned substances on the World Anti-Doping Agency list. He has been active in AOAC since 2002, participating and contributing in many activities such as the lutein and beta carotene ERPs, the Dietary Supplements Task Group and the Presidential Task Force on Dietary Supplements. He is the current Chair of the AOAC Committee on Statistics.



# **Mr. David Ellis,** Major League Baseball (MLB) and Major League Baseball Players Association (MLBPA)

Dave Ellis, RD, CSCS is a veteran Sport RD with 40+ years of work in the sports fueling space (www.daveellisbio.com). Dave's career has been focused on a "food first" approach to helping athletes endure the annual grind of athletics at all levels of sport. Along the way Dave was drawn into the anti-doping space to advise on trends he had observed in sports with dietary supplement use and the potential for prohibited substance exposures. Eventually Dave became active in helping sort out similar risks that have emerged for prohibited substance exposures from highly fortified conventional foods. The value propositions that "functional foods" seek from fortification of with functional ingredients has simply expanded prohibited substance exposure risks beyond dietary supplements. Dave's unique advisory role for MLB and MLBPA in the emerging "food and supplement security space" will offer insights that could help all drug tested populations mitigate prohibited substance exposure risks.



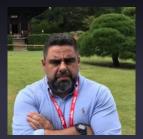
### Moderator: Dr. Lori Bestervelt, PCC Scientific Advisory Board Member

Lori Bestervelt is an Entrepreneurial Executive who brings the strong combination of technical and scientific expertise and business acumen, as well as deep P&L experience in product line expansion. Throughout her career, she has been a trusted partner of and advisor to the senior leadership team, valued for her sound judgment and ability to work cross-functionally with all key executives. She is proud of her high level of name recognition within the dietary supplements, U.S. professional sports nutrition and anti-doping industries.

At NSF International, Lori was continuously promoted through a steady progression of roles of increasing responsibility, culminating in Executive Vice President & Chief Science Officer. She developed and implemented short- and long-term growth strategies with key performance indicators for multiple business units and served as Board Member of two China joint ventures. She served as the company's "chief scientist," evaluating and approving new technologies, and operated as the "final arbiter" for all scientific decisions. She created an advisory board of eminent scientists from universities, regulatory agencies and private industry to contribute their thoughts and peer review scientific papers, and led research & development activities that resulted in publications, presentations to trade associations and regulatory bodies, and training for clients.

Lori also managed more than 800 employees running three global business units operating in 13 countries, including scientists, consultants, standards developers and customer relationship & project managers. She increased laboratory efficiency by 30%, completed 10 acquisitions in six countries (the U.S., the UK, Germany, Brazil, Peru, China), established and grew the health sciences business and launched the Certified for Sport program, which is used by U.S. professional sports leagues and worldwide anti-doping organizations.

# Lab Director Perspectives: Evolving Research Needs for Labs in 2023



## Dr. Henrique Marcelo Gualberto Pereira, Brazilian Doping Control Laboratory

Director of the Brazilian Laboratory for Doping Control (LBCD), accredited by the World Anti-Doping Agency (WADA), with 25 years of experience in Anti-Doping Science. Professor of Analytical Chemistry at the Institute of Chemistry - Federal University of Rio de Janeiro. PhD in Science (Organic Chemistry) from the Federal University of Rio de Janeiro (2004). Member of the World Association of Anti-Doping Scientists. Member of the WADA Laboratory Expert Advisory Group. Expertise in Anti-Doping Science and Analytical Toxicology, with emphasis on Doping Control in Sport, chromatographic techniques, mass spectrometry, immunological methods, development and validation of analytical methods, management of technical teams and Quality System (ISO17025). Permanent Advisor of Doctorate and Master degree by the Graduate Program in Chemistry at IQ - UFRJ. Contemplated twice with the Partners in Action Award (City Hall of Rio de Janeiro) for contributions in the area of anti-doping education and prevention of drug use related to sports.



### Dr. Daniel Eichner, Sports Medicine Research Testing Laboratory

Dr. Eichner has extensive anti-doping experience and is currently the President/Laboratory Director at the Sports Medicine Research and Testing Laboratory (SMRTL). Dr. Eichner was previously the Science Director at the United States Anti-Doping Agency (USADA). At USADA, he provided scientific support for USADA's programs in research, intelligence, sample collection planning, results management, arbitration and education. Prior to joining USADA, Dr. Eichner was the Chief Scientific Officer for the Australian Sports Anti-Doping Authority (ASADA). During his time at ASADA, he was a member of the Anti-Doping Research Program, Anti-Doping Ethical Review Board and an expert witness for numerous Australian Customs Investigations relating to steroid and performance-enhancing seizures. He received his B.S. from the Australian National University (ANU) with first class honors and later completed his Ph.D. in medical science from the ANU.



### Dr. Yvette Dehnes, Norwegian Doping Control Laboratory

Yvette Dehnes has worked in the Norwegian Doping Control Laboratory for 16 years, first as Certifying Scientist for EPO, hGH and hematology, until she was appointed Laboratory Director in 2015. Since 2020 she has also been the Director of the Nordic APMU. She is a member of the WADA Laboratory Expert Advisory Group, and the Working Groups for EPO and the Endocrine Module.

Dehnes holds a PhD in Neurobiology from the Medical Faculty, University of Oslo, and a Cand.scient. degree in Analytical Chemistry from Faculty of Mathematics and Natural Sciences, UiO. She has an Associated Professor II-position at the Department of Pharmacy, UiO.



### Moderator: Dr. Gary Green, PCC Scientific Advisory Board Member

Dr. Green is board-certified in both Internal Medicine and Sports Medicine and is a Clinical Professor in the UCLA Division of Sports Medicine. Dr. Green has been affiliated with Major League Baseball since 2003 and has served as Medical Director for Major League Baseball since 2010. He is also currently Research Director for the League. In these roles, he has been instrumental in several rule changes to Major League Baseball that have improved the health and safety of players. He has been a team physician for collegiate athletes for the past 35 years and has served as head team physician for Pepperdine University since 1997. Dr. Green combines primary care and sports medicine in his clinical practice at the Medical Doctors of St. John's in Pacific Palisades, CA and feels that all patients are athletes. He has published numerous research articles on a variety of subjects that include sports-related concussion, baseball injuries and the use of performance-enhancing drugs in athletes. He is married to Dr. Debra Yerman, DC and they share 4 adult children and 2 dogs.

# Research Supporting Results Management Decisions: Administration Studies to Elucidate Doping vs. Contamination Scenarios



Dr. Mario Thevis, Institute of Biochemistry - German Sport University Cologne

Dr Thevis graduated in organic chemistry and sports sciences in 1998. He earned his PhD in Biochemistry in 2001 and did post-doctoral research at the Department of Chemistry and Biochemistry of the University of California Los Angeles (UCLA) in 2002. After being a senior researcher from 2003 to 2005 he was appointed as Professor for Preventive Doping Research at the German Sport University Cologne in 2006. Mario Thevis further qualified as Forensic Chemist, acts as director of the European Monitoring Center for Emerging Doping Agents (EuMoCEDA), and is Editor-in-Chief of Drug Testing & Analysis. In August 2017, he accepted the position of Director of the Institute of Biochemistry of the German Sport University Cologne.

# Adoption of DBS into Routine Doping Control: Perspectives from MLB and USADA Programs for Athletes



Mr. Jon Coyles, Major League Baseball (MLB)

Jon Coyles serves as Vice President of Drug, Health and Safety Programs at Major League Baseball. In this role, Coyles is responsible for overseeing all aspects of MLB's various drug prevention and treatment programs, including the management of the programs' associated scientific experts, medical consultants, collection officers, and testing laboratories. Coyles also plays a key role in collective bargaining negotiations with the MLB Players Association, including the annual review and update of the Joint Drug Program and league-wide player health and safety initiatives. Coyles is highly involved in MLB's league-wide dietary supplement and nutritional policies, concussion protocols, smokeless tobacco programs, emergency game-day medical coverage, player education, and mental health initiatives. Since 2020, Coyles has also overseen MLB's COVID-19 monitoring and testing plan.

Coyles currently serves on the Board of Governors for the Partnership for Clean Competition (Board Chair), the Board of Directors for the Professional Association of Athlete Development Specialists, and the Board of Managers of InnoVero LLC, and is MLB's primary liaison to the World and U.S. Anti-Doping Agencies, NSF, and the Taylor Hooton Foundation. He has published papers on various topics including dietary supplement regulation and concussion prevention, is a frequent lecturer on effective anti-doping policies and deterrent efforts, and serves as an adjunct professor at the University at Buffalo School of Law.



### Dr. Matthew Fedoruk, U.S. Anti-Doping Agency (USADA)

Dr. Matthew Fedoruk currently works as the Chief Science Officer leading the Science & Research team at the U.S. Anti-Doping Agency (USADA). Dr. Fedoruk is considered an expert in the scientific aspects of anti-doping matters and has reviewed hundreds of results management cases while at USADA and provided credible scientific guidance and opinion to resolve many anti-doping analytical and non-analytical result management cases including the detection of performance-enhancing drugs and the abuse thereof in sport. With more than 15 years of experience in anti-doping and a Ph.D. in Pathology and Laboratory Medicine, Dr. Fedoruk also serves as a standing member of the WADA Health, Medicine and Research Committee (HMRC), is the current Chair of the WADA Strategic Testing Expert Advisory Group and sits on the International Weightlifting Federation (IWF) Anti-Doping Committee. Dr. Fedoruk also serves as co-Chair of the Scientific Advisory Board for the Partnership for Clean Competition (PCC). He has also served in many Paralympic and Pan-American Games since 2014 as a member of the IPC Anti-Doping Committee. Before joining USADA, Dr. Fedoruk worked at the Canadian Centre for Ethics in Sport (CCES) and served with the Vancouver 2010 Organizing Committee for the 2010 Olympic and Paralympic Winter Games in Canada. He currently lives in sunny Colorado Springs, Colorado, which is also known as 'Olympic Town USA' for being home to the U.S. Olympic and Paralympic Committee, the high-altitude Olympic Training Center, numerous national sport federations and USADA.

# Rapid Research Update: Tackling Blood Doping



Dr. Michael Sawka, PCC Scientific Advisory Board Member

Michael N. Sawka, Ph.D., FAPS, FACSM is Chief Scientific Officer of Environmental Physiology and Hydration Associates, and Adjunct Professor of Biological Sciences at Georgia Institute of Technology. Dr. Sawka is a retired Department of Army Science and Technology appointee and held numerous research and academic positions. He is an expert in environmental (heat, cold, high-altitude) physiology, thermoregulation, blood volume control, fluid / electrolyte balance (dehydration, hyponatremia, rehydration), hydration assessment, exertional heat illness, and exercise physiology.

Dr. Sawka published >300 full-length manuscripts and book chapters (>26,000 literature citations); edited graduate textbooks on environmental physiology and exercise physiology. He presented >100 invited Symposia and Keynote Lectures at national / international scientific meetings. Dr. Sawka served on numerous editorial boards, scientific advisory boards / councils / panels including those for the Institute of Medicine, National Academy of Sciences; National Institutes of Health; National Space Biomedical Research Institute; Partnership for Clean Competition; US Anti-Doping Agency; Department of Defense; and North Atlantic Treaty Organization.

He has extensive experience in biotechnology-advanced development. Dr. Sawka's honors include the American College of Sports Medicine's Visiting Scholars Award (1982), Military Medical Merit Medallion (2005), American College of Sports Medicine's Citation Award (2010), Meritorious Civilian Service Award (2012) and American Physiological Society's Honor Award (2016).



#### Dr. Nikolai Nordsborg, University of Copenhagen

Professor Nikolai B. Nordsborg is current head of the Nutrition, Exercise and Sports department at the University of Copenhagen, Denmark. Nikolai is the author of 115 scientific peer-reviewed publications and hold numerous trusted positions. Nikolai has established a research group in Copenhagen, Denmark that specializes in trials where healthy humans are subjected to various interventions. The aim is threefold: 1) to generate new knowledge related to human exercise physiology; 2) to expand understanding of how anti-doping relevant biomarkers behave in various settings and 3) to develop novel anti-doping strategies that are relevant for both athletes and authorities. The past 10 years, projects have focused on autologous blood transfusion, erythropoietin, testosterone, glucocorticoids, clenbuterol, tramadol and more. Analytical methods range from standard markers of the biological passport to novel targets identified by for example metabolomics and flow-cytometry. It is an explicit ambition of the group to establish international collaborations facilitating even more novel analytical strategies.



### Dr. Jean-Francois Naud, INRS Centre Armand-Frappier Santé Biotechnologie

Employed in the Doping Control Laboratory since 2009, Prof. Naud was initially responsible for the analysis for the detection of abuse of erythropoiesis stimulating agents, recombinant growth hormone, homologous transfusions, synthetic haemoglobins and the measurement of blood parameters required for the athlete biological passport during the Vancouver 2010 Olympic and Paralympic Winter Games. These responsibilities are still an integral part of his current work.

He later became director of the APMU working with the CCES and the ITIA among others, position he still holds. He is also a member of the WADA EPO Working Group and has a special interest in blood doping, proteins and biomarkers research. He is currently deputy director of the doping control laboratory at the INRS and was recently appointed professor, where he continues his research on these topics.



#### **Moderator: Dr. Steven Elliott,** PCC Scientific Advisory Board Member

Steve received a BS degree in Biological Sciences in 1974 and a Ph.D in Molecular Biology and Biochemistry in 1978 both from UC Irvine. At UC Irvine and subsequently as a Post-Doc in Edinburgh, Scotland under Professor Murdoch Mitchison, he studied control of growth and cell division. He later joined the lab of Professor John Carbon at UC Santa Barbara, which was performing pioneering studies on centromere structure and function while developing early recombinant DNA methodologies.

Steve joined Amgen Inc in 1983 as a research scientist where he was involved in research in numerous fields including immunology, endocrinology, neuroscience, metabolic disorders, hematology and oncology. Amgen was the first company to clone the erythropoietin (EPO) gene and market recombinant human erythropoietin (rHuEpo) to treat anemia and Steve's early work focused on development of recombinant organisms that could be used to manufacture rHuEpo. In 2001 Steve attended a meeting in Lausanne Switzerland hosted by WADA to discuss and develop rHuEpo and darbepoetin testing procedures and strategies. During the 2002 Winter games, Olympic Lab scientists ran multiple tests on samples and collaborated with Steve to confirm the detection of darbepoetin in several urine samples. He wrote letters to the International Olympic Committee verifying the findings. The three cross-country skiers from whom the samples had been taken were stripped of gold medals and suspended from competing for two years. When the three accused athletes appealed the rulings, He flew to Switzerland to testify in court against them, and all three appeals were denied.

# A Peek Under the Hood: Urinalysis Advancements and Complexities Inside an Anti-Doping Laboratory



### Dr. Tiia Kuuranne, Swiss Laboratory for Doping Analyses

Dr Kuuranne has been Director of the Swiss Laboratory for Doping Analysis in Lausanne since 2016. Prior to joining Switzerland, she was Scientific Director of a WADA-accredited laboratory in Helsinki, Finland. Tiia Kuuranne graduated from the University of Helsinki (PhD in 2003) and is an Academic Associate Professor at her alma mater, Department of Pharmaceutical Chemistry, specialising in steroid metabolism and liquid chromatography-mass spectrometry (LC-MS) techniques. Her academic publications and co-authored papers are mainly related to mass spectrometric techniques and applications, enzyme-assisted synthesis of drug metabolites, athlete biological passports, and general aspects of doping control.

Dr. Kuuranne was appointed president of the World Association of Anti-Doping Scientists (WAADS), an organisation that aims to promote communication, development and harmonisation of anti-doping laboratories in science and routine analysis, for the period 02/2020-02/2023. She has served as a member of several WADA working groups and as Associate Editor of Drug Testing and Analysis since 2009.



### Mr. Brian Ahrens, UCLA Olympic Analytical Laboratory

Brian Ahrens received a B.S. in Chemistry from California State University, Northridge after a period of study which included undergraduate research in stereoselective synthesis utilizing THF-mediated radical processes. Since 1990 Brian has been part of the team at the UCLA Olympic Analytical Laboratory which has afforded the opportunity to participate in research studies ranging from metabolism of endogenous steroids, detection of designer drugs, carbon-isotope ratio analysis and high-throughput sample processing. Brian has been fortunate to participate in antidoping testing as a member of the UCLA team during both the 1996 Atlanta and 2002 Salt Lake City Games. In 2017, Brian took on the role of Director of the UCLA Olympic Analytical Laboratory continuing in service to clean competition providing testing at both the professional and amateur levels.



# Moderator: Dr. Daniel Eichner, Sports Medicine Research Testing Laboratory

Dr. Eichner has extensive anti-doping experience and is currently the President/Laboratory Director at the Sports Medicine Research and Testing Laboratory (SMRTL). Dr. Eichner was previously the Science Director at the United States Anti-Doping Agency (USADA). At USADA, he provided scientific support for USADA's programs in research, intelligence, sample collection planning, results management, arbitration and education. Prior to joining USADA, Dr. Eichner was the Chief Scientific Officer for the Australian Sports Anti-Doping Authority (ASADA). During his time at ASADA, he was a member of the Anti-Doping Research Program, Anti-Doping Ethical Review Board and an expert witness for numerous Australian Customs Investigations relating to steroid and performance-enhancing seizures. He received his B.S. from the Australian National University (ANU) with first class honors and later completed his Ph.D. in medical science from the ANU.

# Anti-Doping Innovation: What's New on the Horizon & Why is Continued Innovation Important?



Dr. Erwin Berthier, Tasso, Inc.

Dr. Erwin Berthier is the Co-Founder and CTO of Tasso. An adept innovator, the technologies developed under his leadership at Tasso are empowering patients and clinicians to realize virtual care, perform frequent monitoring, and improve health outcomes. In addition to his role at Tasso, Erwin is also an Affiliate Assistant Professor in the Department of Chemistry at the University of Washington in Seattle.

Erwin received a Diplôme Ingénieur in Fluid Mechanics from ENSTA (Ecole Nationale Supérieure des Technologies Avancées) in Paris, an MS in Electrical Engineering from the University of Canterbury in New Zealand, and a PhD in Biomedical Engineering from the University of Wisconsin-Madison. He is the author of over 50 publications in peer-reviewed scientific journals and a co-author of the book "Open Microfluidics".



### Mr. Gabe Baida, InnoVero

Gabe Baida serves as the Executive Director of InnoVero, overseeing and leading the company's efforts to provide innovative and user-friendly anti-doping sample collection equipment to organizations worldwide. He helped launch the company and has overseen the launch of their revolutionary NSF certified SAFESystem™ product line. He recently brokered a partnership with Tasso, an emerging biotech company revolutionizing blood collections, bringing their innovative technology to the anti-doping marketplace. Before InnoVero, Gabe held several management roles at the U.S Anti-Doping Agency, including leading the organization's UFC and premier sports division.



#### Mr. David Weiss, National Basketball Association (NBA)

David Weiss serves as Senior Vice President, Player Matters of the National Basketball Association. He leads a team that is responsible for the strategy, finances, technology, and operation of all player health and anti-drug program matters for the NBA and its affiliates.

Weiss manages league health programs related to infectious disease, a league-wide electronic medical records system, an injury data and analytics program, cardiac screening, concussion, and league health- and performance-related Committees, including the Wearables Committee and the NBA's Sports Science Committees, along with a public-private research portfolio in these areas. This work included leading all of the health aspects of the NBA's response to COVID-19 including the development of the health and safety protocols for the NBA's 2019-20 season restart in Orlando and subsequent seasons. He also plays an active role in the league's mental health programs, leads the league's anti-drug program, and is involved with other topics related to the league's Collective Bargaining Agreement with the Players Association.

Weiss joined the NBA in 2012, and previously was associated with the law firm of Skadden, Arps in New York. Named to SportsBusiness Journal's Forty Under 40 list in 2016, he is a graduate with honors from both Dartmouth College and The University of Michigan Law School.



## Mr. Andy Levinson, PGA TOUR

Andy Levinson has been at the PGA TOUR since December 2004 and serves as SVP of Tournament Administration. His responsibilities include competitions, policy compliance, governance, tournament security, player health and fitness and government relations. Levinson serves as Executive Director of USA GOLF Federation, the national Olympic governing body for golf overseeing the men's and women's U.S. Olympic teams. Levinson spent five years in the TOUR's Corporate Marketing and Business Development departments. Prior to the TOUR, Levinson managed advertising and PR for Mizuno USA and spent four years at Cohn & Wolfe, providing communications council for clients including PGA of America, Coca-Cola and MLB.



### **Dr. Edward Goucher**, Thermo Fisher Scientific

Dr Edward Goucher reports to the Clinical Research Vertical as a Sr Business Development Manager within the Chromatography and Mass Spectrometry Division (CMD) at Thermo Fisher Scientific. Dr Goucher obtained his Ph.D. in Analytical Toxicology at King's College London, UK (Pharmaceutical Science Research Division), funded by the Engineering and Physical Sciences Research Counsil (EPSRC) and supported by the WADA accredited London Drug Control Centre. Since his academic tenure Dr Goucher held a variety of industry focused roles and is now responsible for managing vertical market and product positioning activities in life sciences mass spectrometry across the following segments: Clinical Research, Forensic & Sports Anti-Doping, Wellness and personal care, and IVD and Precision Medicine.



# Moderator: Dr. Matthew Fedoruk, U.S. Anti-Doping Agency (USADA)

Dr. Matthew Fedoruk currently works as the Chief Science Officer leading the Science & Research team at the U.S. Anti-Doping Agency (USADA). Dr. Fedoruk is considered an expert in the scientific aspects of anti-doping matters and has reviewed hundreds of results management cases while at USADA and provided credible scientific guidance and opinion to resolve many anti-doping analytical and non-analytical result management cases including the detection of performance-enhancing drugs and the abuse thereof in sport. With more than 15 years of experience in anti-doping and a Ph.D. in Pathology and Laboratory Medicine, Dr. Fedoruk also serves as a standing member of the WADA Health, Medicine and Research Committee (HMRC), is the current Chair of the WADA Strategic Testing Expert Advisory Group and sits on the International Weightlifting Federation (IWF) Anti-Doping Committee. Dr. Fedoruk also serves as co-Chair of the Scientific Advisory Board for the Partnership for Clean Competition (PCC). He has also served in many Paralympic and Pan-American Games since 2014 as a member of the IPC Anti-Doping Committee. Before joining USADA, Dr. Fedoruk worked at the Canadian Centre for Ethics in Sport (CCES) and served with the Vancouver 2010 Organizing Committee for the 2010 Olympic and Paralympic Winter Games in Canada. He currently lives in sunny Colorado Springs, Colorado, which is also known as 'Olympic Town USA' for being home to the U.S. Olympic and Paralympic Committee, the high-altitude Olympic Training Center, numerous national sport federations and USADA.

# Communicating & Covering Doping Issues in Sports



#### Mr. Tim Brown

Tim Brown covered Major League Baseball for more than three decades, most recently for the Los Angeles Times, Yahoo Sports and the Wall Street Journal. He has written two New York Times bestsellers. His third book, a story about the culture of baseball's backup catchers and the example they set for greater society, will be released in July. He lives in Raleigh, N.C.



#### Moderator: Mr. Michael Teevan, Major League Baseball (MLB)

Michael Teevan serves as Vice President, Communications for the Office of the Commissioner of Major League Baseball.

Teevan has worked for MLB since 2002 and has served in his current capacity since 2014. The New Jersey native is a liaison to Major League Club PR Directors and many other Baseball entities and partners. He is an MLB spokesperson to the media on general news, including baseball operations, health and safety initiatives, and league-wide initiatives of the Commissioner's Office. Teevan provides support at MLB's jewel events such as the All-Star Game and the World Series, and has worked international events in Australia, Cuba, the Dominican Republic, Japan, Mexico, Panama and Puerto Rico. Prior to joining MLB, Teevan worked in the Communications & Baseball Information Department of the Boston Red Sox from 2000-2002.

Teevan is a 2001 graduate of Boston College, where he received a degree in marketing. Teevan, an active supporter of Baseball's efforts against ALS (Lou Gehrig's Disease), resides with his wife Erin and son Holden in New York City.