

PARTNERSHIP FOR  
clean competition

# Research Insider

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## From the Desk of the ED

The Power of Partnership.

The PCC is no stranger to the impact of combined efforts – we have been leveraging the benefits of scientific collaboration through our Working Groups since 2012, and since our inception have worked closely with our sponsors, anti-doping allies, and the scientific community to craft the research programs most likely to enhance PED detection and deterrence globally. In 2018, we plan to even further embrace a collective approach so we can best support the scientists steering anti-doping discovery, and the laboratory directors and staff on the front lines of sample analysis.

A large catalyst for this focus is our Translational Research Fund (TRF), which identifies and invests in PCC projects with a high potential for real-world applicability. As we strive to facilitate higher research adoption rates for our projects, the creation of partnerships with global laboratories, universities, manufacturers, innovators, and anti-doping advocates from all spheres will be paramount.

Whether this means funding partnerships between science and industry, investigating new opportunities for tech transfer, or ensuring WADA labs have the important reference materials they need to perform, the PCC is committed to pursuing the collaborations necessary to actualize the most evolved and efficient scientific responses to doping in sport. This issue will highlight some of the impressive results of such partnerships, including updates on TRF projects, which the PCC is excited to continue moving forward. We also believe in collective discussion and support of anti-doping leaders outside of the science realm, so this issue features an organization leading social science anti-doping research - an area the PCC recognizes as critical within the clean sport movement. As always, if you believe there is an anti-doping project the PCC should be involved in, please reach out to me.

Michael Pearlmutter

# Research Spotlight: Translational Research Fund (TRF) Project Updates

For the PCC, translation is the process of turning advances made in experimental settings into real world tools and methods that make doping detection and analysis more cost-efficient, sensitive, and reproducible across all labs and all sports. Projects eligible for TRF funding include PCC-funded research showcasing an excellent potential for adoption in an anti-doping setting, but requiring additional investment or external resources to achieve this goal.



## In 2017, the TRF supported three projects:

### Dried Plasma Spot Card

Development of a novel card device for efficient, point-of-care collection of plasma and whole blood. The card is designed to provide micro plasma samples without the need for centrifugation or other laboratory techniques for producing plasma, and allow for inexpensive shipping, and efficient analysis.

### Breath Testing

The PCC funded Dr. Mario Thevis (DE) to determine the applicability of SensAbues breath detection technology to anti-doping settings. The Swedish technology is confirmed to accurately detect both drugs of abuse and four classes of anti-doping substances, and has the potential to become an unobtrusive, inexpensive option for in-competition testing in sport.

### IRMS Steroid Testing

Improving the efficiency and accuracy of steroid detection in urine via the coupling of comprehensive 2D gas chromatography (GCxGC) with isotope ratio mass spectrometry (IRMS). TRF funding enabled R&D efforts to design a micro-reactor capable of withstanding the high temperatures required for highly precise isotope analysis of steroids and other doping agents using the novel method.

# Research Spotlight: Translational Research Fund (TRF) Project Updates

	DPS	Breath	IRMS
<b>Team</b>	Dr. Jack Henion* Dr. Imelda Ryona	Dr. Mario Thevis SensAbues	Dr. Tom Brenna Dr. Herbert Tobias
<b>Project Start</b>	2014	2016	2008
<b>Status</b>	Patent pending. Tooling development currently in progress.	Detection limits study in progress for several classes of PEDs.	Evaluation of the micro-reactor prototype is in progress.
<b>Potential Benefits</b>	<ul style="list-style-type: none"> <li>- Less invasive out-of competition sampling</li> <li>- No need for phlebotomist</li> <li>- Better sample stability</li> </ul>	<ul style="list-style-type: none"> <li>- Less invasive for athletes</li> <li>- Easy in-competition testing option</li> <li>- Sample collection cost savings</li> </ul>	<ul style="list-style-type: none"> <li>- Increased sample throughput, saving time and costs</li> <li>- Decreased limits of detection for routine testing</li> </ul>
<b>Next Steps</b>	- Production of 2,500 cards for pilot study	- Field trials on ease of use and athlete acceptance	<ul style="list-style-type: none"> <li>- Evaluation of new prototype</li> <li>- Production of necessary software</li> </ul>

\*Former Principle Investigator

## Featured Award

# Larry D. Bowers Excellence in Anti-Doping Science Award

*Presented by the U.S. Anti-Doping Agency*

Nomination submissions for the 2018 award are due by  
**March 1, 2018**

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**Learn more about the nomination process:**

[www.USADA.org/excellence-anti-doping-science-award](http://www.USADA.org/excellence-anti-doping-science-award)

USADA is currently accepting nominations for the Larry D. Bowers Excellence in Anti-Doping Science Award, which recognizes and awards the achievements of scientists who have made an impact on anti-doping approaches and best practices. The award, including a cash prize, is open to any scientist who meets the criteria, including academic researchers and scientists who work in World Anti-Doping Agency-accredited laboratories or other anti-doping-related settings. The nomination deadline for the 2018 Award is March 1, 2018.

# BIG NEWS FOR YOUNG PHDs

The PCC Fellowship Program will now support young PhDs performing anti-doping research at their **host institution** for 1-3 years.

**Submitting a grant? Your postdoc personnel may qualify to receive PCC Fellowship status and funding.**

The PCC will still accept applications for the traditional fellowship model involving two years in a WADA-Accredited laboratory. However, young investigators may now receive fellowship funding to perform high quality anti-doping research at any approved academic institution or lab around the world.

For more information, email Jenna Celmer at [jcelmer@cleancompetition.org](mailto:jcelmer@cleancompetition.org).

**Additional details to follow.**

[cleancompetition.org/programs/fellowship-program/](https://cleancompetition.org/programs/fellowship-program/)

## Congratulations Corner

### Retirement and Award Announcement: Dr. Bryan Finkle, Ph.D

Please join the PCC in extending best wishes to Dr. Bryan Finkle, who retired from the Partnership for Clean Competition's (PCC) Scientific Advisory Board (SAB) as of January 1, 2018. Dr. Finkle has also retired as Chief Consulting Toxicologist to the National Football League, a role he held for nearly 30 years.

During his tenure as an SAB member, Dr. Finkle helped shape priorities for anti-doping research and steer scientific discovery in the domain through programmatic input and reviewing grant requests from anti-doping researchers around the world. Dr. Finkle also helped oversee the PCC's Fellowship program, which supports and develops young PhDs pursuing a career in anti-doping science. Over \$18M USD was awarded to deter and detect PED usage in sport during Dr. Finkle's time on the board.

Dr. Finkle's retirement is the culmination of a prosperous career which spanned the scientific landscape. He will retain his roles as Chairman of the Board of Directors at the Sports Medicine Research and Testing Laboratory (SMRTL) in Utah and occasional consultant to the NFL Health Foundation and the NFL-NFLPA Research and Education Foundations. See Dr. Finkle's full bio here.



*"[Dr. Finkle's] breadth of experience and expertise cannot be easily replaced, and Bryan's contributions to the PCC SAB will be missed."*

- Dr. Larry D. Bowers,  
PCC SAB Chairperson

*"Dr. Finkle served with distinction as the NFL CCT for nearly three decades.*

*During that span, his expertise in the field of anti-doping research and policy was widely recognized and unparalleled. The league will always be grateful for his extensive contributions, which have conferred tremendous benefits to professional football and sport worldwide. We congratulate him as he formalizes a well-deserved retirement."*

- Kevin Manara, Senior Labor Relations Counsel for the NFL

## The Alan Curry Award

Congratulations to Dr. Finkle, who was awarded the Alan Curry Award at the 2017 Annual Meeting of The International Association of Forensic Toxicologists (TIAFT).

This prestigious award is bestowed upon one scientist annually with a long history of distinguished contributions to the field of forensic toxicology. Well deserved, Dr. Finkle!

# Congratulations Corner (Cont.)

## PCC Researcher and Scientific Advisory Board Member Honored

**We are very proud to announce that PCC Scientific Advisory Board member, Dr. John Yates, and one of the PCC's most funded scientists, Dr. Mario Thevis, were recognized as top global scientists in this year's Analytical Scientist's Power List. We congratulate both men on this prestigious honor.**

The Analytical Scientist Top 100 is a celebration of the most influential and accomplished individuals in the scientific community world-wide. This year, stakeholders were asked to nominate scientists in ten diverse categories – from the stars of separation science, to omics explorers, to the mentors training the next generation – to develop the 2017 'Magnificent Tens' list.



### Dr. Mario Thevis, Ph.D

Dr. Thevis was voted number one in the Public Defenders category. Dr. Thevis is a Professor and Director of the Institute of Biochemistry/Center for Preventive Doping Research at the German Sport University Cologne. His most recent PCC research has focused on novel breath testing technology believed to be an uninvasive alternative for in-competition sports testing.



### Dr. John Yates, M.D, Ph.D

Dr. Yates was voted as a top ten scientist in three different categories, including Mass Spectrometrists, Leaders, and a first place standing in Omics Explorers. Dr. Yates is the Ernest W. Hahn Professor in the Department of Chemical Physiology and Molecular and Cellular Neurobiology at The Scripps Research Institute, and his proteomic approaches have become a national and international resource to many investigators in the scientific community.

## Featured Stakeholder



**CARNEGIE  
SCHOOL OF SPORT**  
**LEEDS BECKETT UNIVERSITY**

**While the PCC does not currently fund anti-doping research of a social science nature, we recognize the critical role it plays within the clean sport movement. This issue features the important work being done by leaders in this domain.**

### Mission and Background

The study of doping in sport and society is an established research theme within the Carnegie School of Sport at Leeds Beckett. This theme was initiated with the first systematic review of the social science of drugs in sport literature, funded by the World Anti-Doping Agency (WADA) and led by Prof Susan Backhouse. Published in 2007, the review concluded that “the evidence base undermines strategic planning and limits the capacity to target appropriate and efficacious education programmes to abate doping in sport.” In addressing this conclusion, an established programme of research investigating the use of permitted and prohibited drugs from multiple stakeholder perspectives has been established (e.g., athlete, athlete support personnel, recreational user). Currently, the research team is leading and collaborating on a number of externally funded research projects, including two cross-cultural interventions to examine the feasibility and efficacy of a Clean Sport Bystander Programme (RE>ACT) (IOC funded) and a coach focused programme to optimize motivational climates and prevent adolescents’ current and future willingness to dope (CoachMADE; IOC funded with Curtin University and University of Aristotle University of Thessaloniki). With a focus on Europe, the team is also leading and supporting two international Erasmus + Sport Collaborative projects: RESPECT and FAIR. Further details on some key projects can be found on the next page.



**Prof. Susan Backhouse**



**Dr. Kelsey Erickson**



# Selected Projects: Carnegie School of Sport

## Towards a Vision for Prevention: Testing the feasibility and efficacy of a clean sport bystander intervention programme



RE>ACT (which stands for 'recognize' and 'take action') is a clean sport bystander intervention programme designed to help equip and empower individuals to play an active role in the pursuit of doping-free sport, thus establishing a community-based approach to doping deterrence. With the financial support of the International Olympic Committee, RE>ACT has been delivered to over 600 student-athletes in the US, the UK, and Canada.

**Funder: International Olympic Committee**  
**PI: Prof Susan Backhouse**

## Blowing the whistle on doping through evidence-informed policy making



With a view to inform the World Anti-Doping Agency's Whistleblower Program and Policy, this project consists of five consecutive phases that will culminate in the proposal of an evidence-based whistleblowing policy. A key aspect of this project involves collecting the views of international level coaches and athletes in relation to whistleblowing on doping. Also, the personal experiences of doping whistleblowers will be gathered in an attempt to shed light on the whistleblowing experience.

**Funder: World Anti-Doping Agency**  
**PI: Kelsey Erickson, PhD**

## RESPECT: Research-Embedded Strategic Plan for Anti-Doping Education: Clean Sport Alliance Initiative for Tackling Doping



This project draws together doping prevention academics, practitioners, and policymakers from eight organisations across Europe. The experienced project team will develop a Clean Sport Knowledge Exchange Platform, and in doing so fundamentally shift how the anti-doping community learn and exchange knowledge in order to encourage the development of evidence-informed prevention programmes. This project will also give voice to the clean sport movement through international forums and a series of films. This approach will ensure the experience of athletes is at the centre of anti-doping discourse and policy-making. Finally, over the course of the project the team will co-create the research agenda for doping prevention by drawing upon international expertise in the field. This will help shape a 10-year Research-Embedded Strategic Plan for Anti-Doping Education (Clean Sport Plan 2030) to feed decision-making and policy-making in the area of doping prevention.

**Funder: European Commission, Erasmus + Sport Collaborative Partnerships**  
**Lead Partner Organisation: [www.leedsbeckett.ac.uk](http://www.leedsbeckett.ac.uk)**

# Grant Deadline Reminder

## Pre-Applications Due Mar. 1, 2018

The PCC SAB recommended over \$2M in research funding during 2017 cycles.



Apply for a PCC  
Grant or Fellowship:

Pre-Applications Due March 1, 2018

Full Applications Due April 1, 2018

[CleanCompetition.org](http://CleanCompetition.org)

Future Cycles: July/August 2018 and November/December 2018

## Featured Event:



## Conference on the Prevention of Doping Among Young People in Sports and Fitness Environments

**Mar. 15, 2018**

Anti-Doping Denmark is hosting a conference aimed at PED prevention in vulnerable youth populations. The conference will provide an introduction to doping in fitness – where, when, and for whom it is relevant to discuss body ideals, social media, and well-being, as well as the importance of doping prevention for health reasons. Four Danish municipalities will present their experiences and best practices gained from dedicated doping prevention practices over the last four years. Register by February 20, 2018.

**Note: Conference will be in Danish.**

**To register visit: <https://survey.enalyzer.com/?pid=g3ninikb>  
For more information: <http://ow.ly/uAlm30i4E6C> 20fitnessmilj%C3%B8er**

## Upcoming Dates

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**2018 Round One  
Pre-Applications Due**

Mar. 1, 2018



**Conference on Doping  
Prevention**

Mar. 15, 2018



**iNADO Annual  
Workshop**

Mar. 20, 2018



**WADA Annual  
Symposium**

Mar. 21-13, 2018

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**2018 Round One  
Full Applications Due**

Apr. 1, 2018



**Manfred Donike Workshop**

Apr. 22-24, 2018

**Drug Free Sport™**

**The Sport Exchange  
Summit**

Jun. 11-12, 2018

## Get in Touch:

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