

PROGRAMME

SUNDAY 28 OCTOBER 2018

- 15:00-17:00 Registration
- 17:00-17:15 Welcome: Erick Strauss (Conference chair)
- 17:15-18:00 Opening lecture: Suzanne Jackowski (St. Jude Children's Research Hospital, USA)
Coenzyme A: Back to the Future

18:00-21:00 WELCOME COCKTAIL

MONDAY 29 OCTOBER 2018

THEME: Understanding CoA-related metabolism and biology

Session chair: Erick Strauss

- 09:00-09:25 John Cronan (University of Illinois at Urbana-Champaign, USA)
CoA, an Altruistic Coenzyme
- 09:25-09:35 Discussion
- 09:35-10:00 Michael Burkart (University of California, USA)
From CoA to Carrier Protein Dependent Biosynthesis
- 10:00-10:10 Discussion
- 10:10-10:30 Max Cryle (Monash University, Australia)
Understanding antibiotic biosynthesis centered on non-ribosomal peptide assembly lines
- 10:30-10:35 Discussion

10:35-11:00 COFFEE BREAK

Session chair: Valeria Tiranti

- 11:00-11:25 Giuseppe Fiermonte (University of Bari, Italy)
Role of mitochondrial carriers in CoA metabolism
- 11:25-11:35 Discussion
- 11:35-12:00 Miriam Greenberg (Wayne State University, USA)
Cardiolipin at the epicenter of energy metabolism - implications for Barth syndrome
- 12:00-12:10 Discussion
- 12:10-12:30 Ajit Divakaruni (UCLA, USA)
Regulation of anti-inflammatory macrophage polarization by Coenzyme A
- 12:30-12:35 Discussion
- 12:35-12:55 Chuck Rock (St. Jude Children's Research Hospital, USA)
A Chemical Toolkit for the Modulation of Cellular CoA Levels
- 12:55-13:00 Discussion

13:00-14:00 LUNCH

Session chair: Ody Sibon

- 14:00-14:25 Barbara Bakker (University of Groningen, The Netherlands)
Enzyme promiscuity, coenzyme A, and personalised medicine for mitochondrial fatty-acid oxidation disorders
- 14:25-14:35 Discussion
- 14:35-15:00 Roberta Leonardi (West Virginia University, USA)
Regulation of hepatic lipid metabolism by Nudt7-mediated CoA degradation
- 15:00-15:10 Discussion
- 15:10-15:30 Kevin Saliba (The Australian National University, Australia)
The pantothenate kinases of the human malaria parasite Plasmodium falciparum
- 15:30-15:35 Discussion
- 15:35-15:55 Mitsuhiro Yanagida (OIST, Japan)
CoA in chromatin dynamics, TOR signaling and cwh43 mutant
- 15:55-16:00 Discussion

- 16:00-18:30 Poster presentations (with mini cocktail and beer tasting)
18:30-22:00 **BRAAI (South African Barbeque)**

TUESDAY 30 OCTOBER 2018

THEME: CoA and Ac(et)yl-CoA: Cross-talk, interplay and regulation

Session chair: **Suzanne Jackowski**

- 09:00-09:25 Benjamin Tu (University of Texas Southwestern Medical Centre, USA)
Acetyl-CoA and the regulation of organismal metabolism
- 09:25-09:35 Discussion
- 09:35-10:00 Michael Wolfgang (Johns Hopkins University, USA)
Metabolic regulation of lysine acetylation and malonylation
- 10:00-10:10 Discussion
- 10:10-10:35 Luigi Puglielli (University of Wisconsin, USA)
Intracellular acetyl-CoA flux: a signal that ensures intracellular cross-talk and maintains the efficiency of the secretory pathway
- 10:35-10:45 Discussion

10:45-11:15 **COFFEE BREAK**

Session chair: **Roberta Leonardi**

- 11:15-11:40 Jordan Meier (National Cancer Institute, USA)
Illuminating acetylation's dark matter using chemoproteomics
- 11:40-11:50 Discussion
- 11:50-12:15 Nathaniel Snyder (Drexel University, USA)
Quantifying the metabolism of compartmentalized acyl-CoAs
- 12:15-12:25 Discussion
- 12:25-12:45 Inca Dieterich (University of Wisconsin, USA)
AT-1/SLC33A1 dysregulation drives intracellular acetyl-CoA crosstalk and cause pervasive changes in cellular metabolism
- 12:45-12:50 Discussion
- 12:50-13:10 Rencia van der Sluis (North-West University, South Africa)
Analyses of the genetic diversity and protein expression variation of the acyl: CoA medium chain ligases, ACSM2A and ACSM2B
- 13:10-13:15 Discussion

13:15 **LUNCH: Packed lunch provided**

- 13:30 Buses depart for Villiera Wine and Game drive tour
14:00 Group depart for Stellenbosch walking tour

18:00 **DINNER (Own responsibility)**

WEDNESDAY 31 OCTOBER 2018

THEME: Exploiting CoA biology for anti-infective discovery

Session chair: **Chuck Rock**

- 09:00-09:25 Dominique Soldati-Favre (University of Geneva, Switzerland)
Challenging the importance of Pantothenic acid and Coenzyme A biosynthesis in the acute and chronic stages of Toxoplasma infection
- 09:25-09:35 Discussion
- 09:35-10:00 Hee-Won Park (Tulane University, USA)
Past, present and future of pantothenate kinase structures
- 10:00-10:10 Discussion
- 10:10-10:30 Tomoyoshi Nozaki (The University of Tokyo, Japan)
Functional analysis and drug development targeting CoA biosynthesis in the enteric protozoan parasite
- 10:30-10:35 Discussion

10:35-11:00 **COFFEE BREAK**

Session chair: **Kevin Saliba**

- 11:00-11:25 Sylvie Garneau-Tsodikova (University of Kentucky, USA)
Acetylation and tuberculosis resistance.
- 11:25-11:35 Discussion

11:35-12:00	Joanna Evans (University of Cape Town, South Africa) Targeting Coenzyme A Biosynthesis in Mycobacterium tuberculosis
12:00-12:10	Discussion
12:10-12:30	Patrick Jansen (Radboudumc, RIMLS, The Netherlands) Antimalarial pantothenamide metabolites target acetyl-CoA synthesis in Plasmodium falciparum
12:30-12:35	Discussion
12:35-12:55	Laura de Vries (Radboudumc, RIMLS, The Netherlands) Unravelling the mode of action of a novel class of antimalarials using experimental genetics
12:55-13:00	Discussion

13:00-14:00 LUNCH

Session chair: Max Cryle

14:00-14:25	Marianne de Villiers (Stellenbosch University, South Africa) Pantothenamides: does one size really fit all?
14:25-14:35	Discussion
14:35-14:55	Christina Spry (The Australian National University, Australia) Investigations into the antiplasmodial activity of enamide-stabilised pantothenamides
14:55-15:00	Discussion
15:00-15:30	Business meeting 4th International Meeting on CoA in Health, Disease and Bioscience

15:30-16:15 COFFEE BREAK / POSTER REMOVAL

17:30 Transport to conference dinner from STIAS

18:00-23:00 CONFERENCE DINNER

THURSDAY 1 NOVEMBER 2018

THEME: CoA in Neurodegeneration, Aging and Cancer

Session chair: Luigi Puglieli

09:00-09:25	Valeria Tiranti (IRCCS Foundation Neurological Institute "C. Besta", Italy) Inborn errors of Coenzyme A metabolism and Neurodegeneration
09:25-09:35	Discussion
09:35-10:00	Rozalyn Anderson (University of Wisconsin-Madison, USA) Metabolism of Aging and Delayed Aging by Caloric Restriction
10:10-10:30	Ody Sibon (University Medical Center Groningen, The Netherlands) An essential role for de novo Coenzyme A biosynthesis for normal functioning of heart and brain
10:30-10:35	Discussion

10:35-11:00 COFFEE BREAK

Session chair: Jordan Meier

11:00-11:25	Philippe Naquet (Centre d'Immunologie de Marseille-Luminy, France) Vnn1 pantetheinase limits the Warburg effect and sarcoma growth by rescuing mitochondrial activity
11:25-11:35	Discussion
11:35-11:55	Dario Finazzi (University of Brescia, Italy) Establishment and characterization of pank2 null mutants in zebrafish
11:55-12:00	Discussion
12:00-12:20	Erick Strauss (Stellenbosch University, South Africa) Evaluating HoPan and other pantothenate analogues as tool compounds to manipulate CoA levels
12:20-12:25	Discussion
12:25-13:00	General round table discussion CoA: Where to next?
13:00	Closing: Erick Strauss (Conference chair)

13:00-14:00 LUNCH & DEPARTURE