



## Program

### Friday, 18 August

Time	Title	Speaker	Room
10.00-11.00	Meeting committee meeting		
11.00-12.00	Publications committee meeting		
12.00-14.00	Education committee meeting		
14.00-16.00	Directors meeting & students meeting		
16.00-16.30	Official opening by the Dean of the medical school	Joëls, Marian	Blue Room
16.30-17.15	Keynote 1: Adaptation to critical illness – a conserved approach that is increasingly appreciated	Singer, Mervyn	Blue room
17.15-18.00	Keynote 2: Maternal capital and the inter-generational transmission of health and disease	Wells, Jonathan	Blue room
18.00-19.30	Evening reception & walking dinner		Fountainpatio
19.30-21.00	Program committee meeting		

### Saturday, 19 August

Time	Title	Speaker	Room
08.00-09.00	Coffee and registration		Fountainpatio
09.00-09.45	Keynote 3: Social immunity: protecting the colony against disease	Cremer, Sylvia	Blue room
09.45-10.00	Change rooms		

### **Session 1: Immune system**

Time	Title	Speaker	Room
10.00-10.15	Evolution of human immunity during last several millennia	Morozova, Irina	Blue room
10.15-10.30	Immune priming decreases resistance to early-stage pathogenic infection	Armitage, Sophie	Blue room
10.30-10.45	Are autoimmune diseases and the origin of the adaptive immune system linked?	Catania, Francesco	Blue room
10.45-11.00	Are seasonal and multiannual infectious disease dynamics determined by human aggregation? A long-term study in historical Finns	Briga, Michael	Blue room

## Session 2: Women's health

Time	Title	Speaker	Room
10.00-10.15	To wean or not to wean? Extended breastfeeding and infant growth in a deprived and food-insecure agricultural setting	Núñez-de la Mora, Alejandra	Red room
10.15-10.30	Can premenstrual symptoms be used as a cue to an undiagnosed infection? Insights from digital health	Alvergne, Alexandra	Red room
10.30-10.45	Cumulative health risks of preeclampsia exposure in the womb are consistent with an evolutionary interpretation of the etiology of the disorder	Hollegaard, Birgitte	Red room
10.45-11.00	The Polycystic Ovary Syndrome and the Flexible Response Model of Human Reproduction	Corbett, Stephen	Red room

11.00-11.45	Coffee break & Posters		Fountainpatio
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## Session 3: Metabolic and cardiovascular diseases

Time	Title	Speaker	Room
11.45-12.00	Mechanistic models of metabolic diseases, help explain why disease genes are maintained in populations	Nijhout, H. Frederik	Blue room
12.00-12.15	The French or Mediterranean Paradox and Life History Evolution	Corbett, Stephen	Blue room
12.15-12.30	Milder forms of obesity may be a good evolutionary adaptation: 'Fitness First' hypothesis'	Parakadavathu, Rakesh	Blue room
12.30-12.45	Evolutionary Medicine: Loss-of-function mutation in Proprotein Convertase Subtilisin/Kexin 9 (PCSK9) in archaic humans and its relevance for cardiovascular diseases and hypercholesterolemia	Prost, Stefan	Blue room
12.45-13.00	The Hypertension Pandemic: an Evolutionary Perspective	Rossier	Blue room

## Session 4: Culture, gender and sexual health

Time	Title	Speaker	Room
11.45-12.00	Benefits and challenges of applying evolutionary medicine across cultures	Veldhuis, Djuke	Red room
12.00-12.15	Care as Human Condition - An Evolutionary Psychology of Sickness and Healing	Steinkopf, Leander	Red room
12.15-12.30	Gender-specific Inequality in pre- and early historic Europe	Koepke, Nikola	Red room
12.30-12.45	Natural selection, mismatch, and differences in female human true pelvis morphology with respect to age	Auerbach, Benjamin	Red room
12.45-13.00	Sex, age, and reproduction: tooth loss among the Tsimané in lowland Bolivia	Schwartz, Matthew	Red room

13.00-14.00	Lunch and outreach committee meeting		Fountainpatio & round room
14.00-14.45	Keynote 4: The evolution of sex-specific virulence in infectious diseases	Ubeda, Francisco	Blue room
14.45-15.00	Change rooms		
15.00-16.00	workshop: how to write Clinical Briefs for the journal	Bentley, Gillian & Nunn, Charles	Round room
15.00-16.00	Round table: teaching evolutionary medicine		Red room
16.00-16.45	Coffee break & Posters		

### Session 5: Pathogens

Time	Title	Speaker	Room
16.45-17.00	Evolutionary tradeoff theory of virulence and vector borne diseases	Pandey	Blue room
17.00-17.15	Ancient Mycobacterium tuberculosis complex genomes from the Americas	Stone, Anne	Blue room
17.15-17.30	Parasitism increases mortality in a wild primate	Schneider-Crease, India	Blue room
17.30-17.45	Evolution of iron resistance in Escherichia coli	Ewunkem, Jude	Blue room
17.45-18.00	Optimal virulence in a macroparasite, the cestode Schistocephalus solidus in its specific intermediate host, the three-spined stickleback Gasterosteus aculeatus	Scharsack, Joern	Blue room

### Session 6: Cognition and aging

Time	Title	Speaker	Room
16.45-17.00	The influence of omega-3 fatty acids on the development of human cognition: systematic review and meta-analysis	Bender, Nicole	Red room
17.00-17.15	Evolving a New Neuropsychiatry	Fricchione, Gregory	Red room
17.15-17.30	Fitness-Reducing Cis- and Retrograde Trans-Generational Extended Phenotypes in Association with Autism	Greenspan, Neil	Red room
17.30-17.45	The genomic basis of experimental evolution of aging in Drosophila: how individual SNPs affect lifespan	Hoedjes, Katja	Red room
17.45-18.00	Intercellular Competition and the Inevitability of Multicellular Aging	Nelson, Paul	Red room

18.00-19.00	talks by Omenn and Williams prize winners		Blue room
19.00-20.00	ISEMPH Council Meeting meeting/dinner		
19.00-	Conference delegates: Noorderzon Festival		downtown

## **Sunday, 20 August**

08.00-09.00	Coffee and registration		Fountainpatio
09.00-09.45	Keynote 5: (microbiome)	Bork, Peer	Blue room
09.45-10.00	Change rooms		

### **Session 7: Cancer**

<b>Time</b>	<b>Title</b>	<b>Speaker</b>	<b>Room</b>
10.00-10.15	Is cancer a side effect of evolution? Epidemiological and other evidence	Konstantinos, Voskarides	Blue room
10.15-10.30	Evolutionary Game Theory of Cancer: Harnessing Clonal Selection to Impair Intra-Tumor Cooperation	Archetti, Marco	Blue room
10.30-10.45	The Evolution of Cancer Suppression: Solutions to Peto's Paradox Revealed by Genomic Analyses of Elephants and Whales	Tollis, Marc	Blue room
10.45-11.00	PISCA: a new phylogenetic method for the reconstruction of somatic evolution using somatic chromosomal alteration data	Mallo, Diego	Blue room

### **Session 8: Antibiotic resistance**

<b>Time</b>	<b>Title</b>	<b>Speaker</b>	<b>Room</b>
10.00-10.15	Resistance selection on non-target bacterial populations	Kinnear, Clare	Red room
10.15-10.30	Antibiotic combination efficacy (ACE) network	Barbosa	Red room
10.30-10.45	NOD2 influences intestinal resilience and fungal signatures after antibiotic perturbation	Moltzau Anderson, Jacqueline	Red room
10.45-11.00	Phage therapy can restrain antibiotic bloom of multiresistant gut bacteria	Mikonranta, Lauri	Red room

11.00-11.45	Coffee break & Posters		Fountainpatio
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### **Session 9: Theoretical considerations and animal models**

<b>Time</b>	<b>Title</b>	<b>Speaker</b>	<b>Room</b>
11.45-12.00	Humans as Niche Modifiers: embedding 'mismatch' within broader evolutionary theory	Hanson, Mark	Blue room
12.00-12.15	Behavioural deficiencies: the missing link in our understanding of complex disorders	Watve	Blue room
12.15-12.30	Identifying Evolutionary Medicine Core Principles	Grunspan	Blue room
12.30-12.45	Adding Evolution to Comparative Pathology: Investigating the Unanswered Questions	Uhl, Elizabeth	Blue room
12.45-13.00	Mouse models of human disease: An evolutionary perspective	Perlman, Robert	Blue room

### Session 10: Microbiome

Time	Title	Speaker	Room
11.45-12.00	The microbiome and host resilience	Alcock, Joe	Red room
12.00-12.15	In utero sensitization and induction of tolerance to parasite antigens: Is transplacental immunization a mechanism for the inheritance of immunological strategies?	Blackwell, Aaron	Red room
12.15-12.30	Commensal and pathogenic microbiota and viruses from the oral cavity of deceased Gombe chimpanzees	Ozga, Andrew	Red room
12.30-12.45	Host genetic variation at B4galnt2 influences intestinal microbial ecology and susceptibility to enteric pathogens in house mice	Baines, John	Red room
12.45-13.00	Improved detection of gene-microbe interactions in the mouse skin microbiota using high-resolution QTL mapping of 16S rRNA transcripts	Belheouane, Meriem	Red room

13.00-14.00	Lunch		Fountainpatio
14.00-15.00	Annual ISEMPH Meeting - Meeting of the whole		Blue room

### Session 11: Different topics

Time	Title	Speaker	Room
15.00-15.15	An evolutionary perspective on back problems	Haeusler, Martin	Blue room
15.15-15.30	Identifying genomic adaptations to rice-based diet in asian populations	Sazzini, Marco	Blue room
15.30-15.45	Evolutionary nephrology: changing vulnerability of the kidney from birth to senescence	Chevalier	Blue room

### Session 12: Theoretical considerations and methodology

Time	Title	Speaker	Room
15.00-15.15	Investigating Human Uniqueness in Relation to Health and Disease Using Phylogenetic Methods	Nunn, Charles	Red room
15.15-15.30	Cliff-edge fitness functions and disease vulnerability	Nesse, Randolph	Red room
15.30-15.45	Meta-analyses of variation: applications in evolutionary medicine and beyond	Nakagawa, Shinichi	Red room

### Session 13: Genetics

Time	Title	Speaker	Room
15.45-16.00	A FORMAL MODEL OF CLONAL EXPANSION IN BACTERIAL POPULATION GENETICS	Ledda, Alice	Blue room
16.00-16.15	Strong selection for African ancestry on chromosome 1 in the admixed population of Madagascar	Pierron, Denis	Blue room
16.15-16.30	Negative selection in humans and fruit flies	Sohail,	Blue room

	involves synergistic epistasis	Mashaal	
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<b>Time</b>	<b>Title</b>	<b>Speaker</b>	<b>Room</b>
15.45-16.30	Round table on future of evolutionary medicine		Round room

From here onwards the ESEB program applies.