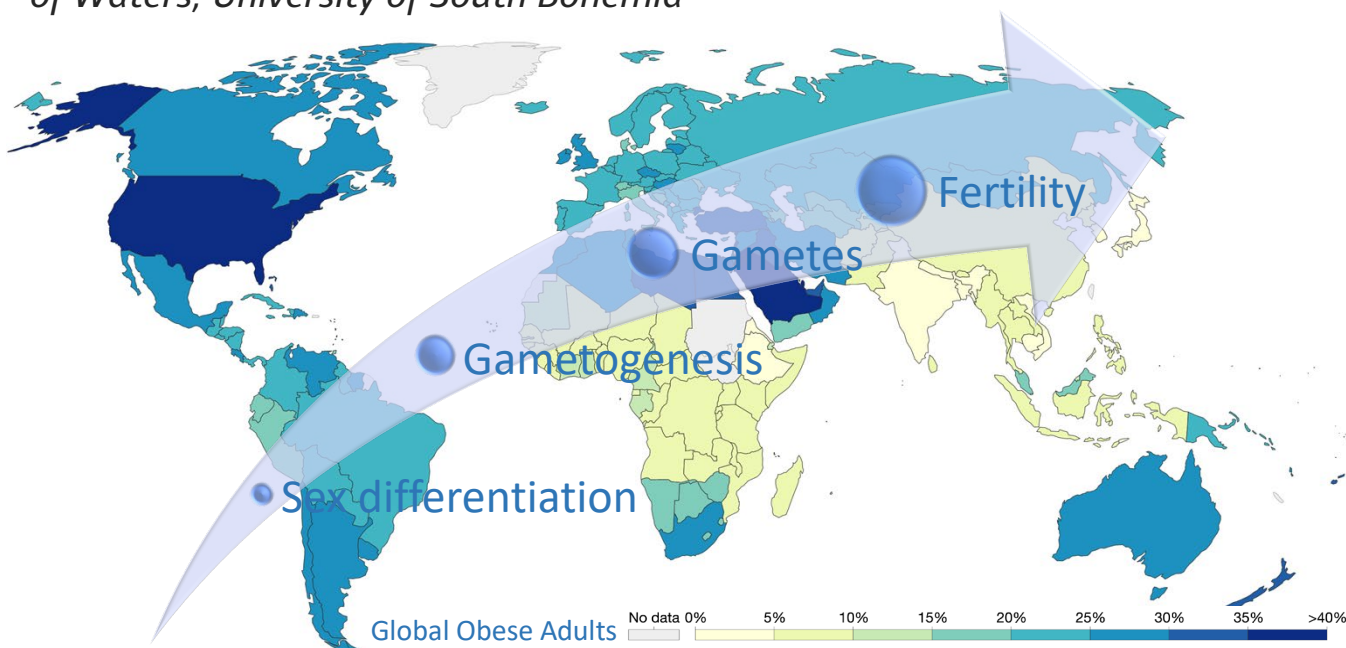




INVITATION to LUNCH SEMINAR

with **Sayed Mohammad Hadi Alavi**

Visiting Professor, CENAKVA, Faculty of Fisheries and Protection
of Waters, University of South Bohemia



Place, Date **FFPW Vodňany, Zátíší 728, Wednesday, July 27, 2022, 11:00 -12:00**

Lecture Integrative Physiology of Metabolic Regulation of Reproduction

Abstract



In all animals, reproductive success is highly sensitive to energy balance. Crosstalk between reproduction and metabolism is an extreme complex phenomenon to understand as hormonal mediators and central neuropeptides that regulate reproduction influence energy balance and vice versa. Energy balance is determined by food intake and energy expenditure, and positive and negative energy balance occurs when higher and lower energy is consumed than is expended in metabolism, respectively. Overweight or obesity and underweight or leanness are commonly known as the endpoints of positive and negative energy balance, respectively. It has been demonstrated that either positive or negative energy balance affects reproductive system through alternations of hormonal functions of hypothalamus-pituitary-gonad in both females and males. The metabolic-related reproductive disorders might be also inherited to the next generations.



Over the past three decades, several metabolic hormones or peptides including ghrelin, leptin and nesphatin 1 have been discovered that regulate energy balance. These hormones and peptides are synthesized in response to satiety and hunger, and are capable of affecting the hormonal functions of HPG. However, integrative physiological crosstalk between metabolic and reproductive hormones is largely unknown. Moreover, our knowledge on the adverse effects of energy balance on fertility is also very limited. In this context, studies on sperm quality including morphology, production, and motility kinetics to understand the effects of changes in energy balance on fertility are very rare.

In our lab, we use rat and fish as model organisms to identify metabolic-related reproductive disorders, to elucidate cell and molecular mechanisms through which metabolic alternations cause reproductive dysfunction that may result in fertility threat, and to investigate metabolic-related epigenetic transgenerational inheritance of reproductive diseases. In these contexts, we investigate the adverse effects of performance-enhancing drugs, and poverty-related food deprivation and diabetes mellitus on reproductive system and fertility that are among very important global health concerns.

Details



Please confirm your participation [here](#) by July 25, 2022

Lunch sandwich for all registered participants.
Free admission. Capacity max. 40 persons.



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6955, Iran



RESEARCH Focus

Cell and Molecular Biology of Reproduction
Reproductive Health and Fertility

JOB History

2017, *Assistant Professor*, University of Tehran, Tehran, Iran.

2017, *Adjunct Assistant Professor*, Shahid Beheshti University,
Tehran, Iran.

2015, *Research Associate*, Tohoku University, Sendai, Japan.

2014, *Researcher*, Czech University of Life Sciences, Prague, Czech
Republic.

2011, *Post-Doctoral Fellow*, Tohoku University, Sendai, Japan.

2009, *Researcher*, University of South Bohemia, České Budějovice,
Czech Republic.

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