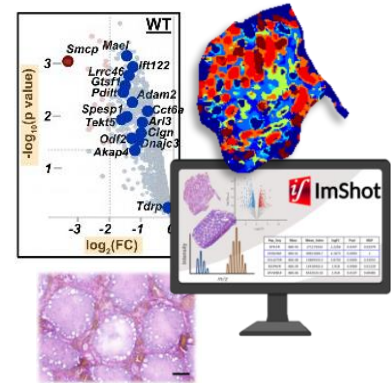


## Masters' thesis project

### Role of age and hormone imbalance in male infertility

#### Project description

Male infertility is a complex multifactorial disease whose underlying etiology remains unknown. Despite substantial efforts, 60–75% of the cases are classified as idiopathic, which makes them a subject of empirical and generalized treatments. This puts the impetus on a comprehensive understanding of the mechanisms of spermatogenesis and testis function thereby providing approaches to molecular diagnosis and targeted treatments. In this project, research will be carried out to comprehend changes in the testicular proteome with an aim to identify novel molecular pathways *in situ* leading to male infertility in an established mouse model (AROM+) of hormonal imbalance and normal aging. In addition, studies would be performed to profile the spermatogenic stage dynamicity of the seminiferous tubules across the tissue cross-section and correlate the findings to testicular aging and infertility.



#### The candidate will learn:

In this project, the successful candidate will carry out research using the following state-of-the-art technologies:

- i) Cryo-sectioning of mammalian tissues
- ii) Imaging mass spectrometry (IMS)
- iii) Mass spectrometry: Shotgun proteomics (LC-MS)
- iv) Bioinformatics: Proteomic data analysis and data integration (latest software and scripts)
- v) Tissue fixation, histological staining and microscopy

#### To apply:

Email your application along with a CV to [Shibojyoti.Lahiri@med.uni-muenchen.de](mailto:Shibojyoti.Lahiri@med.uni-muenchen.de)

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