Splicing analysis in a muscle disease background

The splicing factor CHERP displays a muscle specific phenotype and regulates cell cycle and differentiation. Since CHERP expression is altered in myotonic dystrophy type 1 (DM1), one of the best studied splicing diseases, we hypothesize that it contributes to the disease phenotype. To test this, we want to knockdown CHERP in DM1 cell culture and analyse behaviour, morphology and splicing patterns in comparison to healthy control cells. Besides basic muscle cell culture, this project includes siRNA transfection of cells, qPCR, Western Blot, immunofluorescence stainings, RNAseq and splicing analysis using R and python. We are now looking for a master student to participate in this exciting project in our lab at the Friedrich-Baur-Institute (FBI), Munich.

Requirements:

- B. sc. in biology, biochemistry or related field
- cell culture basics
- basic molecular biology methods (RT-PCR, Western Blot, etc.)
- theoretical knowledge of splicing, protein synthesis and muscle biology

Experience in the following methods is desirable but not required:

- R
- fluorescence microscopy
- siRNA transfection

What you get:

- young team
- excellent supervision
- experience in state-of-the-art methods like RNAseq and big data analysis
- basic research in medical background
- work at the most renowned institute for neuromuscular disease in Germany

What you should bring:

- motivation
- interest in splicing and muscle
- open mind and good mood
- know how to calculate dilutions and concentrations ;)

We are looking forward to receive your motivational letter and CV at vanessa.todorow@med.uni-muenchen.de and peter.meinke@med.uni-muenchen.de