Postdoctoral Research Fellow Position

We are seeking a highly motivated postdoc to work on craniofacial development and genetic disorders. This position is available at the Center for Craniofacial Research School of Dentistry. Our lab has been working on a novel genetic interaction between TWIST1 and IRF6 transcription factors during craniofacial development. Our data showed that double heterozygous embryos for Twist1 and Irf6 have small mandible (micrognathia) and cleft palate. Interestingly, patients affected with Pierre Robin Sequence (PRS) also have micrognathia and cleft palate, and therefore we hypothesize that DNA variations in these genes are causative and contribute risk to PRS and isolated micrognathia. Our goals are to understand the nature of the genetic interaction, rescue the micrognathia genetically and pharmacologically and translate these data into the clinic to determine whether patients with PRS carry DNA variations in genes involved in the IRF6-TWIST1 regulatory pathway.

The postdoc will be responsible to conduct research activities, support and lead lab projects, report and write manuscripts for publications, and also mentor undergraduate and dental students in the lab under the direction of the PI. The postdoc will work with mouse as an animal model to study the role of transcription factors and signaling molecules in face and jaw development. We also use ex-vivo mandibular organ and human cell lines to perform biochemical and molecular assays to test biological hypotheses that will allow us to understand the mechanism of action at the cellular level. This position is for two years with the possibility of extension.

Qualification
A PhD degree in biochemistry, molecular biology, molecular genetics or other relevant basic sciences. Knowledge in human genetics is preferential but not necessary.

A postdoc experience of 0-2 years is preferential.

Please contact Dr. Walid Fakhouri, Walid.D.Fakhouri@uth.tmc.edu, at School of Dentistry for information and interest in the position.