2018 Faculty Advisor Request form for Graduate Student Position

<table>
<thead>
<tr>
<th>Location:</th>
<th>Wake Forest University</th>
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<tbody>
<tr>
<td>Project Title:</td>
<td>iTAKL: Imaging Telemetry And Kinematic modeling in youth football</td>
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<td>Position Need:</td>
<td>1 MS/PhD (PhD preferred), start May or August 2018</td>
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<tr>
<td>Funding:</td>
<td>Funded via a GRA, contract in place</td>
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**Advisor:** Jillian Urban, PhD  
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**Specific Project Description:**  
This project involves biomechanical data collection and evaluation of on-field head impacts measured during football and finite element (FE) modeling of head impact data with a state of the art head FE model. This is a collaborative project with the Department of Neuroradiology to relate information about the cumulative exposure of an athlete in youth and high school football to neurocognitive and imaging data to determine the effects of subconcussive head impacts. This project also involves the evaluation of on-field activities, skills, and behaviors in sport as it relates to biomechanical head impact data. The long term benefit of this research will be to allow equipment designers, researchers, and clinicians to better prevent, mitigate, identify and treat injuries to help make youth and high school sports a safer activity for millions of children.

**Other Notes:**  
This research effort will be in the Center for Injury Biomechanics (CIB) and you will have the opportunity to work on a range of projects in the field of automobile safety, military restraints, and sports biomechanics. The CIB has two primary research facilities. The first is in the WFU School of Medicine in Winston-Salem, NC and the second is at Virginia Tech. The research at the CIB combines experimental testing, computational modeling, and case analysis to investigate human injury biomechanics.