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Jill N. Baxter
Associate

Professional Profile

Ms. Jill Baxter is an Associate in Exponent's Biomedical Engineering practice. Ms. Baxter is an experienced laboratory operator and is trained in the execution of the ISO 17025 accredited procedures established in Exponent's Philadelphia laboratory. This experience includes testing in accordance with a variety of ASTM and ISO protocols for medical device and material evaluation. She has conducted experiments for which the scope of work included mechanical testing, *in vitro* wear simulation, microscopic inspection, and FTIR spectroscopy.

In addition to device and material characterization, Ms. Baxter has direct experience with all phases of cadaveric testing, including various imaging techniques, dissection, and mechanical testing protocols. She developed and implemented a tissue tracking database to manage all of the cadaveric tissue at the Philadelphia laboratory facility. Ms. Baxter has used these skills to determine mechanical properties of the endplates of the human intervertebral discs.

Academic Credentials and Professional Honors

B.S., Biomedical Engineering, Drexel University (*summa cum laude*), 2009

Presidential Scholarship, 2004–2009

Licenses and Certifications

Engineer-in-Training, Pennsylvania, #ET013697

Languages

Spanish

Presentations and Published Abstracts

Heinly JN, Guerin HL, Auerbach JD, Kurtz SM. Comparison of superior and inferior human cartilaginous endplate mechanical properties. Transactions of the Spine Arthroplasty Society 2009.

Heinly JN, Guerin HL, Auerbach JD, Kurtz SM. Superior vs. inferior location affects the tensile mechanical properties of human catilaginous endplate. Philadelphia Spine Research Symposium, 2008.

Guerin HL, Heinly J, Auerbach J, Siskey R, Lonner B, Villarraga M, Kurtz S. Identifying appropriate interventional timepoints for nucleus pulposus replacements: Impact of degeneration-dependent mechanical properties of the cartilaginous endplate. Transactions of the Spine Arthroplasty Society 2008; 72.

Auerbach JD, Wang C, Milby AH, Guerin HL, Heinly JN, Lonner BS, Elliott DM, Borthakur A. A novel quantitative measure of facet joint integrity using T1rho MRI. Transactions of the Spine Arthroplasty Society 2008; 96.

Guerin HL, Heinly JN, Auerbach JD, Siskey RL, Lonner BS, Villarraga ML, Kurtz SM. Human intervertebral disc cartilaginous endplate tensile mechanical properties are anisotropic and degeneration dependent. Transactions of the Orthopaedic Research Society 2008; 33:1444.

Guerin HL, Heinly JN, Auerbach JD, Siskey RL, Lonner BS, Villarraga ML, Kurtz SM. Degeneration and anisotropy affect tensile properties of human intervertebral disc cartilaginous endplate. Philadelphia Spine Research Symposium, 2007.