Joint NCSU-UNC Regenerative Medicine Symposium

NCBC October 15th, 2013 Hamner Conference Center

Opportunities, Challenges and Resources in Regenerative Medicine

Itinerary:

7:30-8:00 Registration

8:15-8:45 Introductions

Pauline Kay Lund, Ph.D.
Sarah Graham Kenan Professor
Cell Biology & Physiology
Pediatrics & Nutrition

Jorge Piedrahita, Ph.D. Professor of Genomics

Molecular Biomedical Sciences

Director, Center of Comparative Medicine and Translational Research

8:45-10:15 Session I – Bone, Cartilage and Regenerative Medicine

Chair: Joanne Jordan, M.D., M.P.H. (UNC)

Joseph P. Archie, Jr. Eminent Professor of Medicine

Chief, Division of Rheumatology, Allergy and Immunology

Director, Thurston Arthritis Research Center

Chair: Elizabeth Loboa, Ph.D. (NCSU/UNC)

Associate Professor & Associate Chair, Biomedical Engineering

Associate Professor, Materials Science and Engineering

Director, Cell Mechanics Laboratory

8:45-9:15 "Osteoarthritis, risk factors, treatment options and potential for new Regenerative

Medicine approaches"

Joanne Jordan, M.D., M.P.H. (UNC)

Joseph P. Archie, Jr. Eminent Professor of Medicine

Chief, Division of Rheumatology, Allergy and Immunology

Director, Thurston Arthritis Research Center

9:15-9:45 "Molecular mechanisms and mesenchymal stem cells in joint morphogenesis and

fracture healing"

Anna Spagnoli, M.D. (UNC/NCSU) Professor Pediatrics and Chief Pediatric Endocrinology Division Associate Professor Biomedical Engineering Associate Professor Cell and Developmental Biology University of North Carolina at Chapel Hill Director Pediatric Endocrinology Fellowship Program Director Pediatric Bone Clinic

9:45-10:15 "BME, mechanobiology, biomimicry, wound healing, and regenerative medicine

Elizabeth Loboa, Ph.D. (NCSU/UNC)

Associate Professor & Associate Chair, Biomedical Engineering
Associate Professor, Materials Science and Engineering

Director, Cell Mechanics Laboratory

10:15-10:30 BREAK

10:30-12:30 Session II – Intestinal and Cardiovascular Stem cells in Tissue Repair and Regenerative Medicine

Chair: Susan Henning, Ph.D. (UNC)

Professor

Medicine, Cell Biology and Physiology

Associate Director, Office of Medical Student Research

Chair: Chris Dekaney, Ph.D. (UNC)

Assistant Professor Pediatric Surgery

10:30-11:00 "Mouse and human intestinal stem cell culture"

Scott Magness, Ph.D. (UNC)

Assistant Professor

Medicine, Biomedical Engineering

11:00-11:30 "NCSU porcine models for translational approaches to intestinal stem cells, injury and

repair."

Anthony Blikslager, D.V.M., Ph.D., D.A.C.V.S. (NCSU)

Professor

Equine Surgery, Gastroenterology

11:30-12:00 "Reprogramming approaches for cardiovascular diseases"

Li Qian, Ph.D. (UNC) Assistant Professor

Pathology and Laboratory Medicine

12:00-12:30 Stem Cells and Cardiac Repair

Ke Cheng, Ph.D. (NCSU)

Associate Professor of Regenerative Medicine

Veterinary Medicine

12:30-12:45 BREAK

12:45-2:00 Lunch / Poster Session

2:00-4:30 Session III – Resources, Challenges and Under-studied themes

Chair: Scott Randell, Ph.D. (UNC)

Associate Professor

Cell Biology and Physiology

Medicine

Chair: Jorge Piedrahita, Ph.D.

Professor of Genomics

Molecular Biomedical Sciences

Director, Center of Comparative Medicine and Translational Research

2:00-2:30 "Stem Cell Core: State of the art and emerging stem cell technologies"

Raluca Dumitru, M.D., Ph.D. (UNC)

Director, Human Pluripotent Stem Cell Core

Medicine

2:30-3:00 "Spontaenous and induced large animal models of disease in regenerative medicine"

Jorge Piedrahita, Ph.D. Professor of Genomics

Molecular Biomedical Sciences

Director, Center of Comparative Medicine and Translational Research

3:00-3:30 "Manufacturing of 3D In Vitro Tissue Models for Drug Screening and Regenerative Medicine Applications"

Binil Starly, Ph.D. (NCSU)

Associate Professor of Regenerative Medicine

Industrial and Systems Engineering

3:30 - 3:45 BREAK

3:45-4:15 "Single cell analyses in stem cell biology"

Jeremy Purvis

Assistant Professor

Genetics

4:15-4:45 "Fibrosis: an understudied and multi-organ problem in regenerative medicine –

unanswered questions, new models and approaches"

Pauline Kay Lund, Ph.D.

Sarah Graham Kenan Professor

Cell Biology & Physiology

Pediatrics & Nutrition

4:45-5:45 Round Table Discussion: Avenues for collaboration and needed resources *Refreshments*

Served

5:45 **Reception / Poster Session**