

4:23—4:28 pm
Apoorva Rangan ~ Harvard (S. Tavakoli / A. Wagers)
A Small Molecule Approach to Increasing Skeletal Muscle Engraftment Frequency in Zebrafish

4:29—4:34 pm
Henna Hundal ~ Harvard (A. Shah / R. Lee)
Ras-related Protein Rab11a is Essential for Thioredoxin Inter-acting Protein-Mediated Fructose Uptake in the Mouse Intestinal Epithelium

4:35—4:45 p.m.
Presentation of Nada Anzak Award
M. William Lensch and Maureen Herrmann

Closing Remarks
and **William Anderson**

4:45—5:15 pm **POSTER PREVIEW and REMOVAL**

5:30—7:30 p.m.
Celebratory Dinner
Mentors and PIs invited
HSCI ~ Bauer Building Lobby

@Harvardstemcell

THIRTEENTH ANNUAL UNDERGRADUATE INTERNSHIP SYMPOSIUM

Contact Information

Harvard Stem Cell Institute
7 Divinity Avenue
Bauer Building
Administrative Suite
Cambridge, Massachusetts 02138 USA
+1 617 496 6647
www.hsci.harvard.edu

Harvard Stem Cell Institute Internship Program (HIP)

Co-directors:
Douglas A. Melton, PhD (Harvard)
David Scadden, MD (MGH/Harvard)

HSCI Executive Director:
Brock Reeve, M.Phil., MBA

Faculty Director:
William Anderson, PhD

Administrative Director:
Maureen Herrmann, EdM

The Harvard Stem Cell Institute
extends its sincere thanks to the
**undergraduate internship
selection committee**
and to the participating
lab mentors, PIs and faculty guests.

This program would not be
possible without your support,
engagement and encouragement.

HIP 2018 has been made
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**THURSDAY
9 AUGUST 2018**

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1000 scientists. One goal. Discovering cures.

**HARVARD UNIVERSITY
SHERMAN-FAIRCHILD
ROOM 268
7 DIVINITY AVENUE
CAMBRIDGE, MA USA**

PROGRAM SCHEDULE

11:00 am Welcome and introduction
William Anderson, PhD
Faculty Co-Director

GROUP A

11:15—11:20 am
Ghazal Aghagoli ~ Brown (S. Freeburg / W. Goessling)
Wnt Signaling Modulates Hepatobiliary Development in Zebrafish

11:21—11:26 am
Vandit Shah ~ Nirma University
(I. Oderberg / W. Goessling)
Liver Intestinal Cross-talk: Using Single-Cell RNA Sequencing to Study Liver Regeneration in Zebrafish

11:27—11:32 am
Nada Attia ~ Harvard (Y. Kitamura / K. Shah)
Evaluating the Significance of DR4, DR5, and EGFR Presence in Breast to Brain Metastatic Cell Lines in Conferring Sensitivity to Targeted Stem Cell Therapeutics

11:33—11:38 am
Nina Cheng ~ Drexel (J. Khalsa / K. Shah)
Characterization of the Tumor Microenvironments of Four Stem Cell-derived Immunocompetent Murine Models for GBM Immunotherapy

11:39—11:44 am
Deepika Kurup ~ Harvard (V. Lagomarsino / T. Young-Pearse)
Investigation of Endosomal-Lysosomal Trafficking in Alzheimer’s Disease using Patient-derived iPSCs

11:45—11:50 am
Gabriella Le Blanc ~ McGill (M.Fernandez / T. Young-Pearse)
Investigating Neurotoxicity of Membrane-anchored Aβ Fragments in Alzheimer’s Disease

11:51—11:56 am
Alan Wong ~ Harvard (K. Johnson / G. Dardik / N. Leigh / R. Oshiro / J. Whited)
Systemic Signals and Mediators Underlying Systemic Cell Cycle Activation in Axolotl

11:57 am—12:02 pm
Aaron Sandoval ~ Univ. of Florida (G. Dunlap / J. Whited)
Identifying the Role of Amphiregulin in Axolotl Limb and Mouse Digit Tip Regeneration

12:03—12:08 pm
Arpita Jajoo ~ Tufts (F. Shamsi / Y-H Tseng)
Investigating the Expression Patterns of SOX5 and HOXA5 in Brown Adipocyte Differentiation

12:09 —12:55 pm POSTER PREVIEW & light lunch

GROUP B

1:00—1:05 pm
Ananya Gupta ~ Johns Hopkins (S. Dubois / J. Dvornick / S. Agarwal)
Modeling Pearson Marrow Pancreas Syndrome using Human Induced Pluripotent Stem Cells (iPSCs) Harboring Mitochondrial DNA Deletions

1:06—1:11 pm
Anthony Kang ~ Northwestern Univ. (M. Feigenson / V. Rosen)
Identification of Meniscus-specific Genes in Developing Murine Hindlimbs

1:12—1:17 pm
Sobhi Kazmouz ~ Monmouth College (J. Whangbo / J. Ritz)
Investigating the Immune Profiles of Chronic Graft-versus-Host Disease Patients after Stopping Low Dose Interleukin-2 Therapy

1:18—1:23 pm
Young Joon Kim ~ Columbia (B. Aubrey / S. Armstrong)
Investigating Synthetic Lethal Targeting of IKZF1/IKAROS during Menin and DOT1L Inhibition in Human Leukemia

1:24—1:29 pm
Matthew Diaz ~ Harvard (T. Zhao / D. Scadden)
Optimization of a Screening Assay for the Discovery of Small Molecules to Induce Osteosarcoma Differentiation

1:30—1:35 pm
Gretchen Long ~ SUNY Polytechnic (M. Gupta / C. Kim)
Treating BRG1 Deficiency in Lung Adenocarcinoma with ATR Inhibition

1:36—1:41 pm
Mert Mestanoglu ~ Bahcesehir Univ. School of Medicine (J. Stanicka / S. Hegarty / Z. He)
Phophotome-wide CRISPR Deletion Screen for Regulators of CNS Regeneration

1:42—1:47 pm
Licyel Paulas Condori ~ Univ. Mayor de San Simon (J. Frame / T. Long / T. North)
The Potential Crosstalk between Glucose Metabolism and Inflammation in Enhancing Red Blood Cell Specification and/or Differentiation

1:48—1:53 pm
Dulanjalee Senadeera ~ South Asian Institute of Technology and Medicine (S. Raj/N. Xubo/T. Cutia/ J. Galloway/A. Craft)
Testing Bioactive Molecules on Mouse ESC Cells to Identify a Change in Cell Fate to Generate Cartilage and Tendon Tissues

1:54—2:30 pm POSTER PREVIEW

GROUP C

2:35—2:40 pm
Abby Thurm ~ UCLA (B.Trinh / A. Ebravidze / D. Tenen)
The Regulation of Hematopoietic Transcription Factor PU.1 by Long Non-coding RNA

2:41—2:46 pm
Dalton Brunson ~ Harvard (C. Yan / M. Hayes / M. Theodorou/ E. Garcia / K. McCarthy / D. Do / N. Iftima /D. Langenau)
Assessing Combinatory Effect of PARP Inhibitor with DNA Damaging Agent on Rhabdomyosarcoma at Single Cell Resolution

2:47—2:52 pm
James Coleman ~ Harvard (N. Guo / A. Sahay)
Examination of Klf9 Expression in Adult Neural Stem Cells

2:53—2:58 pm
Xiaotian Liao ~ Minerva Schools at KGI (S. Nandakumar / V. Sankaran)
Treating Hemophilia A with CRISPR-mediated Gene Activation in Hematopoietic Cells



Posters on view between each session break

2:59—3:04 pm
Ruhi Kanwar ~ Stanford (K. Daneshvar/ A. Kratkiewicz/ A. Mullen)
All-in-One CasRx System for Efficient RNA Knockdown

3:05—3:10 pm
Gurbani Kaur ~ Harvard (J.J. Tan / J. Guyette / H. Ott)
Development of Three-Dimensional Heart Tube Constructs to Model Human Heart Development in vitro

3:11—3:16 pm
Mai-Linh Ton ~ Harvard (W. Hendriks / C. Bragg)
Role of the SVA Retrotransposon in X-Linked Dystonia Parkinsonism

3:17—3:22 pm
Lujia (Cha Cha) Yang ~ Harvard (A. Waghray / J. Rajagopal)
Characterizing the Role of IGFBP6 in Human Airway Epithelium as a Possible Injury Marker

3:23—3:28 pm
Jordan Franklin ~ Harvard (Z. Smith / A. Meissner)
Understanding the Induction of Epigenetic Lesions in Cancer

3:29—4:00 pm POSTER PREVIEW & refreshments

GROUP D

4:05 — 4:10 pm
Michelle Ko ~ Harvard (S. Simmons / M. Daly / J. Levine / F. Zhang/ P. Arlotta)
In vivo Perturb-Seq to Understand the Convergent and Divergent Pathways in Autism Spectrum Disorder

4:11—4:16 pm
Giulio Deangeli ~ Sant’Anna School, University of Pisa (M. Ko / X. Jin / S. Simmons / M. Daly / J. Levine / F. Zhang / P. Arlotta)
In silico Characterization of the Transcriptomic Phenotype in Mouse Brain Cell Types after Perturbation of Autism Spectrum Disorder Genes

4:17—4:22 pm
Jisoo Kim ~ Harvard (Y. Itoh / A. Engmann / J. Macklis)
Investigating the Function(s) of CtIp2 in Corticospinal Neuron Axon Extension