Course description: Though the HSCI summer internship program for undergraduates (HIP) is most tangibly a 10 week experience dedicated to hands-on research in the laboratory of an HSCI faculty member, in reality, it is nothing more than an open door; an invitation to learn and do as much as you can to develop your own interests in the topic of stem cells. Our interns arrive from a wide variety of colleges and universities worldwide. Some have extensive prior academic and research experience with stem cell science while others have little or even none at all. This diversity is part of what makes our program rich and unique but also presents occasional challenges as some students are perhaps further along than others are in certain areas. In order to provide the best possible experience for all students, the research portion of HIP is bolstered by a weekly Companion Course on Stem Cells and Faculty Seminar Series. Each of these offerings is a mandatory component of HIP and is designed to enrich not only the individual student experience but also to provide a weekly forum in which students may get to know one another as friends and colleagues.

The topics in the Companion Course (please see accompanying calendar) include:

- History of Stem Cell Research
- Critical Thinking in Science
- Reading and Interpreting Primary Scientific Literature
- Tips and Tactics for Presenting Data
- Student Journal Club
- Ethical Considerations in Biomedical Research

The Faculty Lecture Series is dedicated to "Provocative Ideas." Each speaker will first describe their career path and then respond to a single question:

“If I had to do it all again, what would I change?”

The goal is to provide an overview of one or two challenges within the field as a whole and how their own research is contributing to the resolution of big questions. The list of speakers is drawn from senior and junior faculty at Harvard, its affiliated teaching hospitals, and research institutes.

The Seminar Series will also include a panel discussion with program alumni

The program culminates in the HIP Symposium, a scientific meeting for students wherein each intern presents a slide show (3 slides maximum) and a poster (standard format) on their summer research project. Additional Symposium details will be provided during the summer. Laboratory members, friends/family, and individuals from the greater HSCI community are also invited to attend. We will gather afterwards to celebrate!
Faculty:

**M. William Lensch, Ph.D.**
Principal Faculty,
Faculty Director of Education,
Co-Director, HIP Program,
Harvard Stem Cell Institute
Executive Director,
Harvard Department of Stem Cell and Regenerative Biology (SCRB)

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e-mail: Willy_Lensch@harvard.edu
Office hours: by appointment

**William J. Anderson, Ph.D.**
Affiliated Faculty,
Harvard Stem Cell Institute
Senior Lecturer and
Associate Director of Education,
Harvard Department of Stem Cell and Regenerative Biology (SCRB)

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voice: 617-495-0950
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Administration:

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Harvard Stem Cell Institute
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Cambridge, MA 02138
voice: 617-496-6647 mobile: 339-222-8153
e-mail: maureen_herrmann@harvard.edu

Course location:
The Companion Course on Stem Cells and Faculty Seminar Series convenes on the Harvard University campus from 9:30 to 11:30 a.m. on Fridays. The class meets in Pierce Hall, Rm 209, at 29 Oxford Street, Cambridge except for July 29th and August 5th, which convene in Maxwell-Dworkin G125 (just next-door to Pierce Hall). Classes start promptly at 9:30, and attendance is mandatory.

Refreshments:
Both the Companion Course and Faculty Seminar are more than informational. They are also important opportunities to build community. Refreshments will be served; usually coffee/tea/juice, fresh fruit, and muffins. Please notify program staff of any allergies and/or special dietary needs.
Journal Club: A student-run journal club, moderated by Bill Anderson, will take place on four morning sessions in July – 5th, 12th, 20th and 26th – from 8:00 to 9:00 a.m. in Harvard’s Sherman-Fairchild Bldg., Room 268. Though not mandatory, interns are strongly encouraged to participate to hone skills in reading and interpreting primary scientific literature. A light breakfast will be provided.

Midterm paper: By the evening of Friday, July 15th, students will be asked to submit a short paper (1 page) that provides the names and institutional affiliations of authors, an abstract (150 words maximum), background, and one or two specific aims of their research project plus a few references. The paper is not to contain a results section as this information will be presented at the Symposium. The midterm is to get students thinking about the organization of their research project and how it might best be presented. These papers will be read by Drs. Lensch and Anderson and returned to each student with helpful comments. Science is a collaborative endeavor and students are encouraged to share drafts of their midterm paper with lab mates for comments and suggestions prior to submission.

Textbooks: No text is required. Rather, the readings over the entire course will be assigned from within the body of current, peer-reviewed scientific literature.

Grading: No grades will be given. Students who require some form of evaluation for their home institutions, programs, J-1 visa requirements, or funding bodies should consult with program leaders in order to make the proper arrangements.

Attendance: Attendance is mandatory. If a student expects to be absent for more than one session, they should notify the course directors.

Accommodations for students with disabilities: Students needing academic adjustments or accommodations because of a documented disability should not hesitate to contact the program leaders. All discussions will remain confidential. The HSCI is committed to ensuring that each student has a productive experience.

Problems? The HSCI wants HIP to be a wonderful experience for everyone. If you encounter difficulties during the summer, please, do not hesitate to chat with Dr. Lensch, Dr. Anderson, and/or Ms. Herrmann.
**HIP Companion Course on Stem Cells**

and Faculty Seminar Series schedule:

*all classes in Pierce Hall 209 except on 7/29 and 8/5 in Maxwell-Dworkin G125, 33 Oxford St.*

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<tr>
<th>Date</th>
<th>9:30 – 10:30 a.m. block</th>
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<tr>
<td>June 10</td>
<td>Critical Reading and Journal Club</td>
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<td>Willy Lensch, PhD and Bill Anderson, PhD</td>
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<td>June 17</td>
<td>400 Years of Stem Cells</td>
<td>Faculty Seminar: TBD</td>
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<td>Willy Lensch, PhD and Bill Anderson, PhD</td>
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<td>June 24</td>
<td>Alumni Panel (names TBA)</td>
<td>Alumni Panel, cont’d.</td>
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<td>Maureen Herrmann</td>
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<td>July 1</td>
<td>Ethics</td>
<td>Faculty Seminar: Jeff Karp, PhD</td>
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<td>Willy Lensch, PhD</td>
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<td>July 8</td>
<td>Faculty Seminar: David Scadden, MD</td>
<td>Faculty Seminar: April Craft, PhD</td>
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<td>July 15</td>
<td>Faculty Seminar: Trista North, PhD</td>
<td>Critical Thinking Skills</td>
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<td>July 22</td>
<td>Stem Cells in the Public Eye</td>
<td>Patient Advocacy</td>
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<td>July 29</td>
<td>Industry Careers</td>
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<td>Novartis Institutes for Biomedical Research</td>
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<td>August 5</td>
<td>Posters and Presentations</td>
<td>Faculty Seminar: Scott Gilbert, PhD</td>
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<td>Willy Lensch, PhD and Bill Anderson, PhD</td>
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*topics and faculty discussants may change at the organizers’ discretion*

August 11th (all day) is the 12th Annual HIP Research Symposium
and celebration of student accomplishments.
Business dress suggested ~ celebratory dinner to follow.
Family, friends and labmates welcome to join us!
Maxwell-Dworkin, Room G115, 33 Oxford Street, Cambridge | begins ~10 a.m.