

Last Resort Clinic Working Group

MIT Laboratory for Financial Engineering
Harvard Crowd Innovation Laboratory
CancerCommons.org
Global-Cures.org

More than half a million individuals die of cancer and more than 1.5 million new cases are diagnosed in the US each year. Worldwide, trends suggest that death and suffering from cancer will increase sharply over the years to come. Current standards of care typically offer two options to patients with advanced cancer—enrollment in a clinical study and palliative care, including hospice—neither of which takes maximum advantage of our increased understanding of the disease and the rapid emergence of new therapeutics. ***What if there were a third option?***: a “last resort clinic” (LaRC) in which clinicians and bench scientists around the world collaborate intensively, in some cases remotely, and on a case-by-case basis to help save terminally ill patients, one at a time. This clinic would use the most advanced therapies, some of which are so experimental that they are based on as-yet-unpublished research and are not yet part of any clinical trial. Such therapies do exist, but the LaRC does not. Not yet.

The goal of this working group is to explore the possibility of creating a LaRC by conducting applied research on the medical, financial, business, and legal challenges involved in launching and sustaining such an endeavor. The end product of this working group will be a business plan and/or supporting research documentation for a LaRC (or why such a business is not feasible). This end product will be placed in the public domain and any LaRC Working Group participant will be free to use this information in any way. There is no obligation or commitment of Working Group members after the completion of this task.

LaRC Working Group Organizers:

- [Karim Lakhani](#), Harvard Business School
- [Andrew W. Lo](#), MIT Sloan School of Management
- Special Advisors: [Tom Rutledge](#), Managing Director, Magnetar Capital; [Vikas P. Sukhatme](#), Beth Israel Deaconess Medical Center and Harvard Medical School; [Vidula Sukhatme](#), Founder and CEO, GlobalCures; [Marty Tenenbaum](#), Founder, CancerCommons

In addition, other professionals from key stakeholder communities will be invited to join meetings in-person and remotely throughout the semester.

Meeting Schedule

The working group will meet approximately once every other week during the second half of the Spring 2015 semester (see dates below) from 4:00 to 7:00. The location will alternate between the MIT Sloan School of Management and the Harvard Business School.

Participants Needed

We are seeking a small group of 10 to 15 highly motivated MIT and Harvard MBA, EMBA, MFin, Sloan Fellows, MD/MBA, and MD/PhD students to work with us on this initiative during the Spring 2015 semester. Although no course credit will be offered, students may be able to receive credit for their work as an independent study or Master's thesis (please check with Profs. Lakhani and Lo to see whether this option is available to you). To apply, please submit a 500-word statement of interest and your resume at <http://lastresortclinic.mit.edu> by February 28, 2015; we will let applicants know by March 10, 2015 whether they have been selected. Those who are not selected can still follow the progress of the Working Group online by signing up as a remote participant (see the website for details).

Deliverables

The main goal of the Working group is to produce a viable business plan for bringing the LaRC to fruition that provides details on all key aspects, including:

- Disease focus and treatment modalities
- Financing and revenue model
- Intellectual Property
- Innovation and research model
- Legal and regulatory framework
- Operations
- Sales and Marketing

For concreteness, we propose to focus on a clinic specializing in providing beyond-standard-of-care cancer treatments. These treatments may include the use of off-label drugs and other therapeutics generally regarded as safe in select patients based on an understanding of the unique biology driving each individual's tumor, the treatment's mechanism of action, and available human or animal efficacy data. The clinic will be staffed by a multidisciplinary team of oncologists, other doctors, and biomedical cancer scientists who can bring their collective expertise to each case. In addition, experts from outside the clinic, including those with expertise in drug repurposing, will be engaged on a regular basis. In doing so, the clinic will open new choices for patient care and contribute to medical innovation as treatment data is mined and shared.

Intellectual Property and Conflict of Interest Issues

To avoid any intellectual property or conflict-of-interest issues, this project will be a purely academic pursuit. Students may choose to receive credit by focusing on this project as part of an independent study. Any work product(s) that originate from this Working Group will be non-exclusive and placed in the public domain for all parties to share. Working Group members may jointly or independently choose to implement the ideas from this Working Group as they wish.

Meeting Schedule:

Session	Date	Topic	Location
1	Mar 11	Introduction, Mission, and Tasks	MIT
2	Apr 2	Incentives for Scientists: How to Organize innovation?	HBS
3	Apr 16	Legal Liability, Insurance, and IP Issues	MIT
4	May 1	Business Models and Ecosystems	HBS
5	May 14	Operating Models and Next Steps	MIT