



Livly

Livly is a young non-profit we formed in order to enable novel approaches toward curing diseases. Livly's current research is centered on the use of cells of the innate immune system to combat all types of cancer. Livly's work will be translational in nature – we aim to develop basic discoveries in this field into a universal human cancer therapy.

Dear Friends,

Welcome to the January, 2010 issue of Livly's newsletter. First of all, we would like to apologize for the long downtime. Many exciting things have been going, and an update via newsletter is certainly overdue.

◆ **Corporate**

By now, most of you know that Livly has moved from Mesa, Arizona to Mountain View, California. We have already experienced the benefits of being in resource-rich Silicon Valley. The Valley is home to giants such as Stanford University, Google and Genentech, as well as numerous other biotech companies. Such resources draw top talent from around the world, including Livly's excellent volunteers: Michael Yamashita, Joseph Jackson, Keith Causey, Christina Lee, and Ujval Kondragunta, among others. Thank you, wonderful volunteers!

See the updated website at www.livly.org, which now features more specific info about the science projects, equipment lists and future plans. You can now also follow Livly on Facebook. We'd be honored to have you as a fan. <http://tiny.cc/8eHQT>

We are pleased to announce a new program – the collaborative laboratory space. The cost of biotechnology equipment often limits creative individuals from pursuing good ideas: If you had a brilliant idea for how to cure a devastating disease, how would you test it without \$100,000 lying around to buy the necessary equipment? In an effort to preserve and promote these ideas, we are offering cheap access to our biotech equipment for very early stage, potentially very high impact bioprojects. We will not touch anybody's intellectual property, and if the project is good and needy enough, we may support it free of charge. We hope that this policy will spark many new collaborations and ideas, and enable the innovators of the future to create a better biomedical future for all of us.

We would like to thank Forrest Collman and Charles Steinhardt, winners of GEN's ELISA REDUX Cryptogram challenge, for supporting Livly's collaborative laboratory space project. Forrest and Charles donated their first prize, an Invitrogen Neon Transfection system valued at \$5,000 to the collaborative space. Thank you Forrest and Charles, for the fantastic expression of confidence in Livly's new project. You can read about the story here <http://www.genengnews.com/articles/chitem.aspx?aid=3166>

Livly can now receive your tax-deductible donations through its sponsor, the Vitae Institute. Livly has applied for 501(c)(3) status, and its paperwork is still being processed by the IRS.

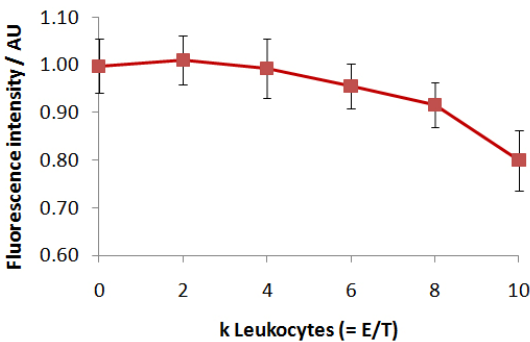
Click to donate through paypal at http://www.livly.org/Get_Involved.html
or via the Vitae Institute's website <http://www.vitaeinstitute.org/donate.php>

◆ Science



We have been able to upgrade the lab with some more advanced automated gear – Our pride and joy right now is the Biomek 2000 automated liquid handling system (shown to the left). The bluechip biotech company Amgen was so friendly to sell us one of these for just about a cent on the dollar. 150 graduate students’ pipetting power in a box. And

even better, it makes no mistakes. We are now putting this machine to use to screen for drugs activating the leukocytes to make them kill cancer better. The determination for how many cancer cells are left alive after the experiment are then read with our microplate station, featuring a fluorescence and an absorbance microplate reader (shown to the right).



The data produced by these instruments looks as shown in the graph to the left of this paragraph – the particular cell donor for this experiment seems to have some cancer killing activity: At the highest leukocyte concentration tested, about 80% of the cancers are dead. There is a nice dose-response effect over the entire range tested, suggesting that the cancers are indeed getting killed by the leukocytes. The overall variance is low, and we expect our automated lab to reproduce this type of experiment with ease.

Most importantly, the killing assay as it stands now will allow us to screen a large number of drugs and other interventions for the ability to improve the leukocyte cancer killing activity. We are still figuring out how to program the Biomek to do certain advanced tricks this requires. Now that we have our hands free, we promise to keep you all posted much more regularly.

In an independent project, we have started a collaboration with the Direct Oncology (DO) Foundation in an effort to sequence the genome of a cancer resistant line of mice. Livly will work with DO to raise funds for sequencing and in creating a plan for use of the data. We hope that this research will grow into a promising parallel strand to Livly’s in house cancer immunology research. Read more at <http://www.pr.com/press-release/201382>

We want to thank you for your encouragement. Keep us updated, and send us your feedback. Please remember, we can’t survive (yet) without your financial contributions. Please consider making a donation at www.livly.org. In good health,

John Schloendorn
President and Co-Founder

Eri Gentry
CEO and Co-Founder

<http://www.livly.org>

Mountain View, CA