Lab Researchers Earn Royalties

Director Paul Alivisatos acknowledged Berkeley Lab researchers with successfully licensed and commercialized inventions at the Lab’s annual royalty distribution event, held Feb. 13.

Out of the nearly $2.7 million in FY12 licensing income, the inventors’ share, about $657,000, went to 113 Lab scientists and authors. As in past years, members of the TOUGH software development team elected to use their entire inventors’ share to fund upgrades to their popular simulation programs for analyzing geothermal and hydrocarbon reservoirs, among other subsurface systems.

The Lab’s annual licensing income grew steadily from $65,000 in FY94 to a $3.8 million high in FY09. Since then, royalties have seesawed with an upturn in FY11 flanked by lower income years in which some licensees experienced reduced sales and other elected to release intellectual property rights altogether to reduce expenses.

In spite of the economic climate, Berkeley Lab technologies gave rise to three new startups in FY12—Lygos (http://newscenter.lbl.gov/feature-stories/2012/02/28/jbei-startup-takes-aim-at-petrochemicals/), TeselaGen (http://newscenter.lbl.gov/feature-stories/2012/10/01/jbei-teselagen/), and Saffron Eagle Biofuels, which seeks to develop advanced biofuels from non-food feedstocks. All three startups are based on technology developed at the Joint BioEnergy Institute, JBEI.

Berkeley Lab Technology Transfer negotiates the right to use Berkeley Lab inventions with organizations from Fortune 500 firms to small start-ups. Offering exclusive or non-exclusive rights to the technologies ensures that the Lab’s inventions are successfully commercialized and, ultimately, meet society’s needs. To learn more about how the Lab’s Technology Transfer Department works with researchers and their inventions, visit http://www.lbl.gov/Tech-Transfer/researchers/index.html.

The following Berkeley Lab technologies and published books generated royalty income in FY12 from exclusive and non-exclusive licenses, copyrighted software and book publications, and transfer of biological material:

- Low Cost Water Purification
- Advanced blood lipoprotein testing for diagnosis and treatment of heart disease
- Low resistivity photon-transparent window attached to photo-sensitive silicon detector
- Robotics for nanovolume protein crystallography
- PHENIX software for automated macromolecular crystallography
- Visual servoing optical microscopy for biological applications
- Low NOx burners for industrial use and air heaters
TABL Story ~ Distribution Ceremony for FY12 Royalties
Prepared by Suzanne T. Storar, x-4306
Technology Transfer and Intellectual Property Department

- Therapeutics for cardiovascular disease
- EnergyPlus, energy simulation software for building design
- EMGeo software for oil and gas exploration
- TOUGH software for modeling multiphase fluid and heat flow
- Cathodic Arc Plasma System with Twist Filter
- PhyCa software for the PhyloChip
- Endothelial Function Assessment
- Bioelectrical Reactor
- Electron Microscope Phase Enhancement
- Software for Dynamic SPECT
- Waste Heat Recovery technology
- Home Energy Saver software
- Duct sealing technology
- Transgenic mice for sickle cell disease research
- Books authored by Berkeley Lab researchers on particle physics, experimental math, scientific data management and energy efficient windows

A complete list of start-up companies based on Berkeley Lab technologies can be found at [http://www.lbl.gov/Tech-Transfer/success_stories/start-ups.html](http://www.lbl.gov/Tech-Transfer/success_stories/start-ups.html).

The following researchers earned royalties in FY12:

Adams, Paul D.
Afonine, Pavel V.
Anders, Andre
Arasteh, Dariush K.
Bailey, David H.
Bankiewicz, Krystof
Basarkar, Mangesh
Benner, William H.
Bielicki, John K.
Bissell, Mina J.
Blanche, Patricia J.
Brennan, Thomas
Brown, Richard E.
Buchko, Rostyslav
Buhl, Walter F.
Callahan, Daniel E.
Campisi, Judith
Carrie’, Francois (Remi)
Chen, Joanna
Chen, Renkun
Cheng, Robert K.
Coates, John D.
Commer, Michael
Cork, Christopher
Cornell, Earl W.
Coughlin, Katie
Curtil, Dimitri
Densmore, Douglas M.
DeSantis, Todd Z.
Diaz-Delgado, Raul
Dimri, Goberdhan P.
Dmytriv, Zinovii
Doughty, Christine
Duewer, Fred W.
Eberling, Jamie L.
Echols, Nathaniel
Erdem, Ahmet E.
Flament, Arnaud
Gadgil, Ashok
Gao, Chen
Geiger, Emil J.
Ghiorso, Albert
Glaeser, Robert M.
Griffith, Brent T.
Grosse-Kunstleve, Ralf W.
Gulberg, Grant T.
Hale, Frank V.
Ham, Timothy S.
Haves, Philip
Headd, Jeffrey J.
Hillson, Nathan J.
Hochbaum, Allon I.
Hoffman, Darleane C.
Holland, Stephen E.
Hong, Tianzhen
Hoyt, Tyler A.
Huang, Y Joe
Jaklevic, Joseph M.
Jin, Jian
Johansson, Jan
Jones, Arthur L.
Keen, Noel
Kinoshita, Kim
Koike, Masato
Kolbe, William F.
Krauss, Ronald M.
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Prepared by Suzanne T. Storar, x-4306
Technology Transfer and Intellectual Property Department

Lee, Kwang Ho
Luke, Paul N.
Madden, Norman W.
Mair, Dieudonne A.
Majumdar, Arunava
Maltz, Jonathan S.
Mills, Evan
Modera, Mark P.
Moriarty, Nigel W.
Narla, Mohandas
Natarajan, Pradeep
Newman, Gregory A.
Nordmeyer, Robert A.
Orr, Joseph R.
Parvin, Bahram
Paszty, Chris
Peacocke, Monica
Pennacchio, Len
Pinckard, Margaret
Reutter, Bryan W.
Richardson, Thomas J.
Rosengarten, Rafael D.
Rotem, Doron
Rubin, Edward M.
Santarsiero, Bernard D.
Sauter, Nicholas K.
Schultz, Peter G.
Selkowitz, Stephen E.
Shoshani, Arie
Stevens, Raymond
Thrash, Cameron
Tsang, Chin-Fu
Turley, Eva A.
Wang, Duo
Warner, Jeffrey
Webster, Sam
Wei, Tao
Winkelmann, Frederick C.
Xiang, Xiao-Dong
Yang, Haitao
Yang, Peidong
Yegian, Derek
Zelnik, Yuval R.
Zwart, Petrus
Members of the TOUGH Software Development team, which reinvested earned royalties into further development of the software suite:

Birkholzer, Jens
Cortis, Andrea
Doetsch, Joseph
Doughty, Christine
Finsterle, Stefan
Ghezzehei, Teamrat
Haukwa, Charles
Houseworth, James
Ito, Kazumas
Johnson, Jeffrey
Kim, Jihoon
Kowalsky, Michael
Liu, Hui-Hai
Lu, Guoping
Moridis, George
Mukhopadhyay, Sumit
Murakami, Haruko
Oldenburg, Curtis
Pan, Lehua
Pau, George
Pruess, Karsten
Reagan, Matthew
Rutqvist, Jonny
Seol, Yongkoo
Shan, Chao
Sonnenthal, Eric
Spycher, Nicolas
Steefel, Carl
Wu, Yu-shu
Xu, Tianfu
Zhang, Guoxiang
Zhang, Keni
Zhang, Yingqi
Zhou, QuanLin

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