

Berkeley Lab IPO Innovation Grants FY12 - FY18

	PI	Year of Award	Amount of Award	Award Goal (overview)	Outcome (overview)	Follow-on Funding?	Startup?	Licensee?	Products?
<b>TOTALS</b>	<b>18 projects</b>	<b>FY12 to FY17</b>	<b>\$1,616,000</b>			<b>\$21,806,000</b>	<b>6 startups</b>	<b>4 startup licenses, 2 startup options \$519,569 software licensing income</b>	<b>New software: TOUGH, EMGeo, and IDEALEM software New product: M3 Emitter (Newomics) Tested products: Exogen Biotech, Heart Sentry</b>
Dynamic Window Coatings	Milliron	FY12	\$100,000	Fabricate and test prototype for demonstration.	Startup launched. Startup and research funding received.	1. \$3.3M ARPA-E 2. \$150,000 STTR (Phase 1) 3. \$1M SBIR (Phase 2) 4. \$250,000 cash/in-kind consultation Wells Fargo Innovation Incubator 5. \$1.2M private funding for startup	Yes - Heliotrope	Heliotrope	Expected in 2018
TOUGH Software Suite	Finsterle	FY12	\$100,000	Improve customer usability and ensure codes handle large-scale simulations.	TOUGH REACT, an upgrade from earlier code (TR2) developed and launched.	No.	No	Licensing income of \$369,569 from 54 commercial licensees plus 17 no-cost licensees (collaborative or government use)	TOUGH-REACT software
EMGeo Code Upgrade	Newman, Commer	FY12	\$100,000	Combine seismic and electromagnetic data for more effective de-risking capability.	New code, EWI3D, developed and released.	\$1.5M in WFO/SPP	No	\$150,000 for one (1) software license to Aramco	EMGeo, v.3
MEA Chip	Wang	FY12	\$100,000	Demonstrate MEA chip for use in bioimaging.	Startup launched. Research funding received.	1. \$2.98M from seven (7) SBIR Phase I 2. \$4.4M from three (3) SBIR Phase II 3. \$100,000 SPP	Yes - Newomics	Newomics	Newomics' M3 emitters released in 2017
Neutron Generator to Replace Radioactive Sources	Schenkel	FY13	\$99,000	Demonstrate performance of advanced Penning type ion sources.	Additional funding and industry interest.	\$180,000 WFO/SPP	No	No	No
Endothelial Function Measurement	Maltz	FY13	\$63,000	Develop prototype device for patient testing and studies.	Startup launched. Product development underway.	\$46,000 SPP	Yes - Lexington Biosciences	Lexington Biosciences	Heart Sentry device. Trial units received from manufacturer in 2017. Pilot clinical studies began in late 2017.
Carbon Black Additive for Li-ion Batteries	Kostecki	FY13	\$70,000	Test material in battery cathodes.	Full evaluation with ANL battery group.	No. Project terminated.	No	No	No
Graphene Based Optical Modulator	Zhang	FY13	\$74,000	Design a prototype and determine manufacturability.	Interested licensees	No	No	No	No
Radiation Sensitivity Assessment	Costes	FY13	\$60,000	Evaluate testing process and determine feasibility of expanded scope for test (to identify risk of cancer).	Joint LBNL-Exogen (startup) IP for a home DNA collection kit, automated processing, and analysis for the general public	1. Indiegogo (crowdfunding campaign) earned \$100,000 for pilot test kits. 2. SBIR project was funded but had to be relinquished with company on standby.	Yes - Exogen Biotechnology	Exogen (option - expired). Company is on "standby."	DNA test kits offered in 2014 crowdfunding initiative

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Bifunctional Chelators for Radiopharmaceutical Use	Raymond	FY13	\$62,000	Prepare and evaluate chelator.	Publication in JACS	No. Project terminated.	No	No	No
Rapid MRI Well Logging	Pines	FY13	\$73,000	Develop and evaluate prototype.	Publication in Angewandte Chemie. Prototype device developed.	No. Project terminated.	No	No	No
Rapid Diagnosis of Pathogen and Antibiotic Resistance	Brodie	FY14	\$90,000	Reduce assay processing time and test performance in clinical setting.	Collaboration with UCSF led to revised scope and development of panel that detects multiple antibiotic-resistance bacteria	No. Project terminated.	No	No	No
Li-S Battery	Cairns	FY14	\$100,000	Demonstrate battery cells.	Developed higher specific energy cells and improved fabrication method. Secured additional funding and licensee.	\$1.1M CRADA (Cal-Charge)	Yes - NexTech Batteries	NexTech Batteries	Products projected to be available in late 2019.
IDEALEM: Efficient Data Reduction	Sim	FY15	\$100,000	Enhance algorithm and package downloadable software.	Two publications, one conference paper, one poster, one demonstration. Collaboration with Texas A&M. New DOE ASCR funded project. <b>Work is ongoing.</b>	DOE ASCR project based on IDEALEM receives \$350,000 per year for four years (FY18 thru FY21)	No	No	Downloadable IDEALEM package on LBNL's datagrid
Flame-powered SOFC Generator	Tucker	FY16	\$150,000 (to match TCF)	Create functioning prototype.	Two publications, one poster, one conference talk. Prototype completed. Developing 2nd prototype needed to demonstrate technology. <b>Work is ongoing.</b>	No	No	No	No
Safe Lithium Metal Electrode for Advanced Battery Manufacturing	Helms	FY16	\$75,000 (to match TCF)	Improve, apply, and test protecting coatings.	Improvements led to industry interest and follow-on funding.	\$3.5M ARPA-E	Yes - Sepion	Sepion (option - LBNL startup). Sepion is negotiating a license with ANL, the licensing lead due to JCESR funding.	Not at this time
Decorporation Agents	Abergel	FY16	\$100,000	Demonstrate use of technology for broad, consumer application.	Successful studies in animal models. Draft manuscript for publication. Industry interest and follow-on funding.	\$500,000 NIH	Possibly	Possibly	Not at this time
MyGreenCar	Saxena	FY17	\$100,000	Improve app functionality and test. Engage in customer discovery.	Startup licensee identified.	\$100,000 from EPA; several proposals and SPPs are in the works	In negotiation	In negotiation	iOS beta launched for limited release in Nov. 2017; working on issues with iOS 11 and Android beta app.
Ring Burner for Water Heaters	Therkelsen	FY18	\$100,000	Integrate technology into residential water heater and test performance, emissions	Project initiated, awaiting report	\$100,000 CRADA (AOSmith)			
EcoFAB	Northen	FY18	\$50,000	Create EcoFABs, place them in diverse research environments, and review data / survey input to refine design	Project initiated Summer 2018				

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Compact Multi-Beam Accelerator (COMBA)	Schenkel	FY18	\$13,600	Attend international Ion Implantation Technology conference for targeted customer discovery	Conference will be held Sept. 2018				