Ten Awards Granted for Research in Early Detection, Targeted Therapies, and New Treatments

LUNGevity Foundation is pleased to announce the winners of our 2014 Research Awards. At this time of unprecedented promise in lung cancer research, these ten projects have been chosen as this year’s award recipients for their potential to accelerate progress in our areas of focus—early detection and personalized treatments.

These exciting projects focus on meeting four objectives:

1) Finding lung cancer earlier by identifying high-risk never-smokers, as well as by developing new early detection tests using blood or nasal swabs

2) Disabling communications between lung cancer cells and their environment to stop tumor growth

3) Expanding the new treatment approach of immunotherapy to treat patients with early-stage lung cancer, improve immune system efficiency, and stop brain metastases

4) Overcoming drug resistance, both in people whose lung cancer is ALK-positive and in those being treated for small cell lung cancer

Read more about these exciting new projects and the brilliant scientists across the country who are focused on finding solutions to these key lung cancer challenges.

continued on page 4

Breathe Deep Baltimore Gets an Assist from the Baltimore Orioles

Over $115,000 raised for lung cancer research and programs

LUNGevity Foundation was joined by Baltimore residents, the lung cancer community, and the Baltimore Orioles on September 20, 2014, for Breathe Deep Baltimore. Orioles manager Buck Showalter, right fielder Nick Markakis, catcher Matt Wieters, reliever Darren O’Day, head athletic trainer Richie Bancells, assistant athletic trainer Brian Ebel, and the Orioles mascot were all on hand to support LUNGevity’s mission of creating a world where no one dies of lung cancer.

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REFLECTIONS FROM
THE PRESIDENT’S DESK

With the holiday season approaching, we would like to thank all of the individuals and organizations who have supported our life-changing research and programs.

In the past several months, we’ve teamed up with organizations such as the American Lung Association, Lung Cancer Research Foundation, Melanoma Research Alliance, and PatientsLikeMe® to fund cutting-edge research and develop invaluable resources for survivors. We also partnered with the Baltimore Orioles for a record-breaking event at Camden Yards in September!

This fall, we are hosting our Breathe Deep events as well as our fall benefits. Events season is a special time for us to connect with our donors and volunteers, without whom the success of LUNGevity Foundation would not be possible. It also creates exciting opportunities to interact with first-time donors, participants, and volunteers, and to forge new relationships in the lung cancer community.

We hope you will join us this November during Lung Cancer Awareness Month in changing the way people learn about, treat, and live with lung cancer. We are proud of our new partnerships and collaborations and optimistic for the future of lung cancer research and treatment.

Thank you for your continued support!

Andrea Ferris

Be an Advocate This Lung Cancer Awareness Month

Although we act as advocates on behalf of those living with lung cancer throughout the year, November’s Lung Cancer Awareness Month offers an opportunity for us to raise awareness about lung cancer through special activities all month long. It’s a time for members of the lung cancer community to come together to deliver a message to America about the needs of those facing this disease.

LUNGevity has a month full of activities and great opportunities for members of the community to join us:

• Be a lung cancer advocate. Visit the LUNGevity website (www.LUNGevity.org) to find our LUNGevity Advocacy Toolkit and learn about the ways you can be involved.

• Share lung cancer press releases and news.

• Join our month-long social media campaign. We invite you to participate in our Fact Photo Sharing Campaign on Twitter, Facebook, Pinterest, and Instagram. Visit @LUNGevity on Twitter, Facebook, Pinterest, or Instagram to learn more.

• Attend or volunteer at a LUNGevity event near you. LUNGevity is hosting events in cities across the country throughout the month of November. If you can’t attend an event, you can still sign up as a satellite participant to support this important cause. For a complete listing of events, please see the back cover of this newsletter.

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In July, LUNGevity Foundation announced an exciting new partnership with the Lung Cancer Research Foundation and Melanoma Research Alliance to co-fund new, innovative immunotherapy research on PD-1 inhibitor treatment options for both non-small cell lung cancer and metastatic melanoma patients with brain metastases. The award recipient is Lucia Jilaveanu, MD, PhD, Yale University, for her research project entitled *Response to PD-1 inhibitors in melanoma and lung cancer patients with brain metastases.*

This first-of-its-kind collaboration to tackle a serious concern that affects both melanoma and lung cancer paves the way for future projects that leverage advancements in science across multiple diseases for better patient outcomes.

Immunotherapy is one of the most promising new fields of medical science. To expand this advancement to lung cancer patients with brain metastases could open a whole world of treatment to the 50,000 people every year who do not qualify for clinical trials.

“Collaboration and focus on increasing survivorship are core values of LUNGevity,” said Andrea Ferris, LUNGevity President and Chairman.

**“We hope to encourage others to explore partnerships across disease states to accelerate advances in treatment options for cancer patients.”**

*Andrea Ferris, President and Chairman, LUNGevity Foundation*

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**LUNGevity and American Lung Association Co-Fund Award in Early Detection**

LUNGevity Foundation’s announcement this July of its 2014 Career Development Award for Translational Research recipients included an exciting collaboration. For the first time, the American Lung Association (ALA) has co-funded one of LUNGevity’s early detection research grants.

The Foundation’s goal for the Career Development Awards is to support the nation’s future research leaders who will keep the lung cancer field vibrant with new ideas. The recipient of the ALA/LUNGevity grant is Dr. John Poirier of Memorial Sloan Kettering Cancer Center, whose research project is entitled *Molecular mechanisms of acquired drug resistance in small cell lung cancer.*

Each organization will provide 50% of the funding for the three-year award.

This collaboration affirms LUNGevity’s reputation as a leader in cutting-edge research. ALA’s partnership and endorsement allow LUNGevity to reach a broader audience and fund even more critical research.

“LUNGevity is delighted to have the American Lung Association co-fund one of our future leaders in lung cancer research.”

*Susan Mantel, Senior Vice President for Research and Education, LUNGevity Foundation*

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**Have a question about a specific lung cancer medical term or process?**

Want to understand the latest advances associated with lung cancer research, explained in clear terms a person without medical training can understand? Submit your question to the medical experts at GRACE through Ask the Experts at: [www.LUNGevity.org/AskTheExperts](http://www.LUNGevity.org/AskTheExperts)
The 2014 LUNGevity Early Detection Awards went to three sets of researchers, each working on a different approach to finding the disease in its earliest stages, when it can be treated much more easily.

Identifying germline risk mutations for early-onset and familial NSCLC

Zeynep H. Gümüş, PhD
Icahn School of Medicine at Mount Sinai

Steven M. Lipkin, MD, PhD
Joan & Sanford I. Weill Medical College of Cornell University

Kenneth Offit, MD, MPH
Memorial Sloan Kettering Cancer Center

Each year, more than 22,000 people who have never smoked are diagnosed with lung cancer, many at younger ages. Dr. Gümüş and team will identify underlying genes that could indicate a higher risk of developing lung cancer, similar to what has been found with certain forms of breast, colorectal, and pancreatic cancers. People who carry the high-risk genes could then be monitored more carefully.

Detection of early-stage lung cancers via tumor DNA in blood

Abhijit Patel, MD, PhD
Yale University

With the goal of a simple blood test that permits early detection of lung cancer, Dr. Patel will test a new technology to see if it can accurately identify lung-cancer-specific telltale changes in the blood of patients with early-stage lung cancer.

Nasal biomarkers for the evaluation of lung nodules found by low-dose CT screening

Kimberly M. Rieger-Christ, PhD
Jacob Sands, MD
Lahey Hospital & Medical Center

Katrina Steiling, MD, MSc
Boston University

Dr. Rieger-Christ and team are developing a minimally invasive test using nasal swabs to determine quickly and easily whether nodules found through CT screening are early cancer or benign lesions.

The 2014 LUNGevity Targeted Therapeutics Awardees are focused on several ways of stopping lung cancer, including in the emerging area of immunotherapy.

Antagonism of adenosine A2A receptor to improve lung cancer immunotherapy

Alberto Chiappori, MD
Scott Antonia, MD, PhD
H. Lee Moffitt Cancer Center & Research Institute

Cancer cells have found ways to block the body’s own immune system from helping to destroy the tumor. However, newly developed drugs can make the patient’s own immune system more efficient. This team will administer two different immunotherapy drugs to lung cancer patients and determine whether the addition of another drug, PFB-509, can improve the anti-tumor effects and patient outcomes.

Activating phagocytosis to inhibit small cell lung carcinoma (SCLC)

Julien Sage, PhD
Irving Weissman, MD
Stanford University

Drs. Sage and Weissman will test a new immunotherapy to boost the arsenal of immune cells to combat SCLC. They will work to disable a protein on the cancer cells that inhibits macrophages, a type of immune cell that can engulf and destroy cancer cells. This will boost the killing capacity of macrophages and also recruit more immune cells to the area by the tumor.

Protein engineering to target tumor-stroma interactions in NSCLC

Alejandro Sweet-Cordero, MD
Jennifer Cochran, PhD
Stanford University

Lung cancer cells depend on continuous cross-talk with other cells around them. Drs. Sweet-Cordero and Cochran will use decoy proteins to intercept and disable this essential molecular communication between the tumor and its environment, thereby destroying the cancer.

Congratulations to our 2014 awardees! Our deepest thanks to all of our donors who have made these vital investments in a better future possible. Thanks to our distinguished Scientific Advisors—all leaders in their field—for their guidance in selecting from among a very competitive group of applicants. Special thanks to Genentech for overall support of the research program and to Janssen Research and Development, LLC for supporting the Early Detection Research Program.
Response to PD-1 inhibitors in melanoma and lung cancer patients with brain metastases

Lucia Beatrice Jilaveanu, MD, PhD
Yale University

Brain metastases are extremely common in both NSCLC and melanoma patients. Two new immunity-boosting drugs are showing promise against both of these kinds of cancer. However, whether these drugs work on cancer cells that metastasize and lodge in the brain is not known. Dr. Jilaveanu will study patients with brain metastases treated with the new drugs to find biomarkers that could predict the patients’ response to this treatment.

This study is a new collaboration by LUNGevity Foundation with the Melanoma Research Alliance and the Lung Cancer Research Foundation

The promising early career scientists who were given 2014 LUNGevity Career Development Awards are all focusing on improving treatments as well.

Neoadjuvant anti-PD-1 antibody, nivolumab, in resectable NSCLC

Patrick Forde, MD (MB, BCh)
Johns Hopkins Kimmel Cancer Center

Dr. Forde is working to apply a kind of immunotherapy that has been successful in people with lung cancer in later stages to people with early-stage lung cancer, stimulating their immune system to attack cancer cells. This treatment, nivolumab, uses anti-PD-1 antibodies to release the “brakes” on the immune system.

Dissecting the role of negative feedback inhibition in ALK+ lung cancer

Christine Lovly, MD, PhD
Vanderbilt University School of Medicine

A subset of lung cancer patients has mutations in a gene called ALK. Dr. Lovly will identify new molecular targets that can be blocked in combination with ALK inhibitors to overcome the resistance that often develops after successful treatment and to promote better responses.

Molecular mechanisms of acquired drug resistance in small cell lung cancer

John Poirier, PhD
Memorial Sloan Kettering Cancer Center

Small cell lung cancer is an exceptionally aggressive type of lung cancer. While these tumors are initially responsive to a combination of chemotherapy drugs, tumor recurrence is near universal. Dr. John Poirier will develop and study models of drug resistance to identify new strategies to overcome chemotherapy resistance.

This grant was co-funded by the American Lung Association

LUNGevity Teams Up with PatientsLikeMe®

LUNGevity is excited to announce a new partnership with PatientsLikeMe, a free online community for people living with life-changing conditions, including lung cancer. It’s a place where patients and survivors can accelerate research and learn from other’s experiences.

How can you get started on PatientsLikeMe?

Create a free profile
Keep tabs on all your health info in one spot, so you can see how you’re doing overall.

Learn
Use easy-to-understand charts to track symptoms, side effects, and treatments such as chemotherapy or radiation.

Connect
Members are talking and sharing about everything including treatment decisions, coping with side effects, trials, alternative therapies, and more.

Contribute to research
Every piece of data you share on PatientsLikeMe — whether it’s on your profile or through a survey — can change the face of lung cancer research.

Join the PatientsLikeMe lung cancer community by visiting plmjoin.com/LUNGevity
Several hours before the team took the field, participants rallied for survivors and honored loved ones lost to lung cancer. This year’s event was held in memory of Monica Barlow, the Orioles’ Director of Public Relations, who passed away from complications of stage IV lung cancer in February. Monica’s husband, Ben, delivered a heartfelt message during the program. He expressed gratitude for the emotional support their family has received and for the research and treatment that prolonged Monica’s life. Ben and Team Barlow are carrying on Monica’s legacy of sharing her story as a means to advocate for the critical need for research.

The Orioles and their fans have supported LUNGevity all season. Team members wore orange Breathe Deep shirts during spring training. Orioles’ right fielder Nick Markakis named LUNGevity as his charity beneficiary in Major League Baseball’s “Strike Out Cancer” initiative. First baseman Chris Davis donated $100 to LUNGevity for every home run he hit this season. And Fox sportscaster Ken Rosenthal and the Oriole Bird mascot wore fashionable LUNGevity bow ties during a broadcast in August and Game 3 of the World Series in October as part of the BowTie Cause.

“The Orioles have taken every opportunity to raise public awareness for lung cancer. Our foundation is enormously grateful for the unprecedented leadership and support of the entire Orioles organization and the great community of Orioles fans. The Orioles are blazing new trails as the first professional sports team to embrace lung cancer and join in the effort to change outcomes of those diagnosed with the disease,” said Andrea Stern Ferris, President and Chairman of LUNGevity.

LUNGevity Foundation was an honoree at Massachusetts General Hospital Cancer Center’s the one hundred, an annual event created to celebrate 100 individuals and organizations who have dedicated themselves to making a difference in the fight against cancer.

LUNGevity was nominated by Scientific Advisory Board Member and Massachusetts General Hospital oncologist Lecia Sequist, MD, and was honored for its impactful research program as well as its initiatives to educate and support people living with lung cancer. In its seventh year, the event was attended by over 1,000 guests, including presenter Matt Damon and honoree Valerie Harper. Honorees from across the country and often around the globe are nominated as “heroes” by the individuals or institutions grateful for their contributions on behalf of cancer patients. LUNGevity is proud to be in such inspirational company.

“Recognition as one of the 100 most impactful contributors to progress in cancer research by a distinguished institution like Massachusetts General Hospital speaks to the level of dedication and determination demonstrated by everyone involved with LUNGevity, including vital volunteer coordinators like Kathy Cuddy,” said Susan Mantel, Senior Vice President for Research and Education.
Breathe Deep Program Extending Its Impact through Mission-Driven Events

Breathe Deep events continue to reach new communities across the country. Through the Breathe Deep network of local events, LUNGevity is giving a voice to tens of thousands of people who are working to change outcomes for people facing a diagnosis of lung cancer.

Not only does the growth of the Breathe Deep program mean that we are connecting with and engaging individual communities and their citizens, hospitals, businesses, and civic groups — it also means that we are creating a stronger national movement. The Breathe Deep program is raising significant funds for research and support, and we are raising the national profile of lung cancer, one community at a time.

New events include walks and runs in Huntley, IL; Cincinnati, OH; Baton Rouge, LA; Greensburg, PA; Mobile, AL; and Columbia, SC; and more are being added.

This grassroots events program is made possible by the efforts of incredible individuals who volunteer their time, talents, and resources through local events that take place year-round and coast to coast.

Are you interested in adding your community to our growing network of events? Please check out our list of events at www.LUNGevity.org/events. Contact our VP of Community Engagement, Beth Ida Stern, at 323-380-5394 or bstern@LUNGevity.org about establishing a new event or getting involved with an existing event in your area.

*Individually, we are one drop. Together, we are an ocean.*

Ryunosuke Satoro

Walk, run, golf, and celebrate with us this year as we build communities of engagement across the country. LUNGevity’s 2014 events are under way from coast to coast!

For information about events near you, visit www.LUNGevity.org/events.
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