

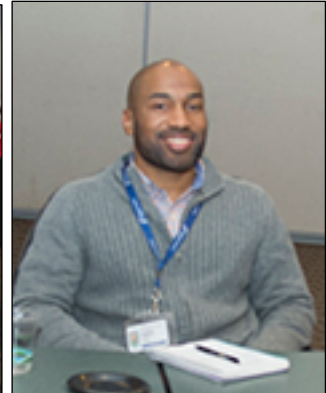
Department of Medicine

Office of Research Newsletter

The Department of Medicine, Basic Science Section hosted a social event on Friday, January 31, 2014. This event was led by Dr. Chu and focused on lung mucosal immunity research. The goal of this event was to strengthen translational lung mucosal research by providing information about research resources, identifying areas of collaborations, and applying for multiple PI R01s, U and P grants.

Drs. Nick, Mason, Voelker, and Martin gave a brief introduction of their research expertise and needs in bacterial and viral infections in lung diseases. There was a great interest about the virome and microbiome study in various lung diseases at NJH.

~Written by Brian Day, Vice Chair of Research Department of Medicine





SAVE THE DATE

The Medicine Office of Research (MOOR) proudly announces the upcoming winter Research Retreat will be held **Friday, February 21, 2014** directly following the DOM Faculty meeting in Molly Blank, rooms 103 and 104 from 1:30 pm – 3:30 pm.

The 2014 MOOR Research Retreat will feature an abstract competition with two \$500 awards and two \$250 awards.

Our Goals are to:

- ✓ Facilitate interactions among the Basic, Clinical and Translational Scientists
- ✓ Identify opportunities for collaborative grant applications

Judging Process

- ✓ Abstracts and posters will be judged by a DOM committee
- ✓ Two abstracts will be selected for oral presentations and a \$500 award, one from the Basic Science and one from the Clinical and Translation Research Sections
- ✓ Two best posters will be selected for a \$250 award, one from the Basic Science and one from the Clinical and Translation Research Sections

Article supplied by Sherry Dowling



Good news for Grant Writing Workshops: Kristen Holms' grant entitled "***The Role of Family Relationships in Adherence to Supplemental Oxygen Therapy***" was funded by the National Council on Family Relations. The payline was less than 8%. Kristen presented this proposal in the September 10, 2013 workshop and received very helpful feedback! Thank you team. Way to Go!

- **2.20.14** Clinical and Translational Section – Heitler Hall – Aryeh Fischer, MD - "*The Role of the Lungs in Rheumatoid Arthritis*"
- **2.27.14** Basic Science Section – Heitler Hall – Accomplished Scientist Speaker – Kam Leong, PhD, Duke University
- **3.7.14** Pulmonary RIP Talk – Heitler Hall – Tim Blackwell, MD, Vanderbilt University
- Grant Writing Workshops will be held *Tuesdays and Thursdays* in A631 Smith Bldg., from Noon-1pm (*unless otherwise stated*)

NEXT.....

The Department of Medicine, **Clinical and Translational Section** will be hosting a social event soon – Details to follow!

The National Jewish Health Biobank

Did you know

5644* patients have donated blood, BAL or epithelial brushing samples to the **NJH Biorepository**. Here are some patient numbers by disease:

- Extensive phenotypic data (diagnoses, medications, demographics) are available for each sample through the **NJH Research Database**
- Currently archived biologic materials include: serum, plasma, buffy coat, BAL cells, RBCs, Blood/DMSO. Brushings are handled by the Human Live Cell Core
- Samples have also been collected from 62 healthy normal subjects and we can query the RDB for control samples

Visit the Clinical Research Support Services website to learn more!

Disease	Blood	BAL	Epithelial Brushings
Asthma	1507	122	25
Bronchiectasis	491	27	3
COPD**	790	14	5
Esophageal Reflux	1700	110	24
Lung Cancer	102	1	0
Obstructive Sleep Apnea	835	33	3

*Counts are as of 12/12/2013.

**Does not include samples from COPDGene patients, but they can also be identified in the RDB

Article supplied by Pearlanne Zelarney

Grant Funding Alerts

You can locate the announcement number on the NIH Website for the agency's official announcement and related guidelines.

DEADLINE	ANNOUNCEMENT NUMBER	ISSUING ORGANIZATION	RESEARCH AREA/FUNDING OPPORTUNITY
Guide Notice Alert	NOT-OD-13-079	National Institutes of Health	<ol style="list-style-type: none"> NIH Anticipates Transition to Payment Management System Subaccounts in FY2014. The purpose of this Guide Notice is to alert NIH grantees that in accordance with U.S. Department of Health and Human Services (HHS) directive to Agencies, NIH anticipates transitioning payment for all grant awards to Payment Management System (PMS) - copy and paste link to access (PMS): http://www.dpm.psc.gov/access_pms/system_status.aspx subaccounts by the end of FY2014. While final HHS policy guidance is still forthcoming, NIH is providing the community with this advance notice.
5/20/2014	RFA-HL-13-016	National Heart, Lung, and Blood Institute	<ol style="list-style-type: none"> NHLBI SBIR Phase IIB Bridge Awards to Accelerate the Commercialization of Technologies for Heart, Lung, Blood, and Sleep Disorders and Diseases. The purpose of the NHLBI SBIR Phase IIB Bridge Award is to facilitate and accelerate the capital-intensive steps that are required to transition SBIR Phase II projects to the commercialization stage by promoting partnerships between SBIR Phase II awardees and third-party investors and/or strategic partners. Clinical trials may be proposed as appropriate, but are not required. (R44)
5/24/2014	RFA-HL-14-004	National Heart, Lung, and Blood Institute	<ol style="list-style-type: none"> This Funding Opportunity Announcement (FOA) invites research grant applications to conduct time-sensitive ancillary studies related to heart, lung, and blood diseases and sleep disorders in conjunction with ongoing clinical trials and other large clinical studies supported by NIH or non-NIH entities. The program establishes an accelerated review/award process to support the crucial time frame in which these ancillary studies must be performed. (R01)
6/20/2014	PAR-12-155	National Heart, Lung, and Blood Institute	<ol style="list-style-type: none"> Integrative Omics Data Analysis for Discovery in Lung Diseases. The National Heart, Lung, and Blood Institute (NHLBI) invites applications to: (1) generate systems-level models of pulmonary pathobiology through integrative analyses of existing omics (e.g., genomics, transcriptomics, proteomics, metabolomics) data; and (2) experimentally test novel predictions of these models using human tissues/cells and/or mammalian animal models. (R01)
9/8/2014	PA-11-244	National Heart, Lung, and Blood Institute	<ol style="list-style-type: none"> Effects of Secondhand Smoke on Cardiovascular and Pulmonary Disease Mechanisms. This FOA invites applications that propose to better characterize the dose-response relationship between secondhand smoke (SHS) exposure and the cardiovascular and pulmonary diseases by improving our understanding of the mechanisms by which SHS contributes to these diseases. (R01)
9/8/2014	PA-11-245	National Institutes of Health National Institute of Nursing Research	<ol style="list-style-type: none"> Obesity and Asthma: Awareness and Management. The purpose of this funding opportunity announcement issued by the National Institute of Nursing Research is to stimulate research to examine the interconnections of asthma and obesity. The prevalence's of both asthma and obesity have significantly risen in the past few decades. Although the association between these 2 conditions has been found in many studies, the exact mechanisms for how this association arises are unresolved. Because both of these conditions have their beginnings in early life, an aspect of the association between them that requires more understanding is their common exposures in early life. Studies that investigate the molecular pathways linking asthma and obesity are encouraged. (R01)
9/8/2014	PAR-13-233	National Institute on Aging, National Cancer Institute National Institute on Alcohol Abuse and Alcoholism	<ol style="list-style-type: none"> Chronic Inflammation and Age-related Disease. The participating NIH Institutes and Centers invite applications to address both the origins and the effects of low-level chronic inflammation in the onset and progression of age-related diseases and conditions. Chronic inflammation, as defined by elevated levels of both local and systemic cytokines and other pro-inflammatory factors, is a hallmark of aging in virtually all higher animals including humans and is recognized as a major risk factor for developing age-associated diseases. (R01)
10/25/2014	PAR-12-126	National Institute for Occupational Safety and Health	<ol style="list-style-type: none"> Cooperative Research Agreements Related to the World Trade Center Health Program. Support research projects and epidemiologic studies to help answer critical questions about physical and mental health conditions related to the September 2001 terrorist attacks including: biomarkers of exposures or health outcomes. (U01)
11/21/2014	PAR-12-094	National Cancer Institute	<ol style="list-style-type: none"> Exploratory/Developmental Grants Program for Basic Cancer Research in Cancer Health Disparities Through this Funding Opportunity Announcement (FOA), the Center to Reduce Cancer Health Disparities (CRCHD) and the Division of Cancer Biology (DCB), at the National Cancer Institute (NCI), invite grant applications from investigators interested in conducting basic research studies into the biological causes and mechanisms of cancer health disparities. (R21)
1/9/2015	RFA-HL-14-023	National Heart, Lung, and Blood Institute	<ol style="list-style-type: none"> This Funding Opportunity Announcement (FOA) invites clinical research project grant (R01) applications on the prevention, diagnosis, and treatment of HIV-related heart, lung, and/or blood (HLB) diseases in adults and children. The goal of this FOA is to address major scientific gaps in characterizing, preventing, diagnosing, or treating HIV-related HLB diseases and foster multi-disciplinary collaborations among investigators. (R01)
1/14/2015	PAR-12-138	National Heart, Lung, and Blood Institute	<ol style="list-style-type: none"> This FOA issued by the National Heart, Lung, and Blood Institute (NHLBI), National Institutes of Health, encourages Research Project Grant (R01) applications from institutions/organizations that propose collaborative systems biology research projects by multi-disciplinary teams to advance our understanding of normal physiology and perturbations associated with heart, lung, blood, and sleep (HLBS) diseases and disorders. Multi-disciplinary expertise across experimental and computational domains is required, and the multi-PI mechanism is allowed, as integration across these domains is a critical element of the proposed research plan. (R01)
3/21/2015	PAR-13-358	Eunice Kennedy Shriver National Institute of Child Health and Human Development National Cancer Institute National Eye Institute National Heart, Lung, and Blood Institute	<ol style="list-style-type: none"> Opportunities for Collaborative Research at the NIH Clinical Center The goal of this program is to support collaborative translational research projects aligned with NIH efforts to enhance the translation of basic biological discoveries into clinical applications that improve health. It encourages high quality science demonstrating the potential to result in understanding an important disease process or lead to new therapeutic interventions, diagnostics, or prevention strategies within the research interests and priorities of the participating NIH Institutes/Centers (ICs). (U01)
3/21/2015	PAR-13-068	National Cancer Institute	<ol style="list-style-type: none"> This FOA is designed to facilitate the planning and execution of focused collaborations in cancer-related research, training and career development, and education by supporting the creation of partnership frameworks and the conduct of pilot projects and pilot programs by investigators at the partnering institutions. Feasibility Studies to Build Collaborative Partnerships in Cancer Research. (P20)

continued... Grant Funding Alerts

You can locate the announcement number on the NIH Website for the agency's official announcement and related guidelines.

6/20/2015	RFA-HL-14-012	National Heart, Lung, and Blood Institute	<ol style="list-style-type: none"> 1. Small Market Awards: SBIR Phase IIB Competing Renewals for Heart, Lung, Blood and Sleep Technologies with Small Commercial Markets. 2. The goal of this FOA is to de-risk these technologies so that development can continue with private funding after NHLBI support ends; therefore, applicants must submit a Commercialization Plan, which should include details on any independent third-party funding that has already been secured or is anticipated during the project period. (R44)
10/16/2015	RFA-HL-14-011	National Heart, Lung, and Blood Institute National Center for Advancing Translational Sciences	<ol style="list-style-type: none"> 1. Onsite Tools and Technologies for Heart, Lung, and Blood Clinical Research Point-of-Care SBIR. 2. The purpose of this Funding Opportunity Announcement (FOA) is to support research using advanced technologies to develop novel point-of-care (POC) devices and implement existing technologies in clinical settings with a goal to guide diagnostic and therapeutic efforts for the heart, lung, blood (HLB) and sleep disorders. (R43/R44)
1/8/2016	PA-12-133	National Institute of Nursing Research National Institute of Environmental Health Sciences	<ol style="list-style-type: none"> 1. National Institute of Environmental Health Sciences Exposure to environmental pollutants and toxins that result in health risks, symptoms, and other health conditions/diseases including lower respiratory diseases, chronic obstructive pulmonary disease, and cardiovascular diseases. (R21) <i>Companion Funding Opportunity</i>
1/8/2016	PA-13-030	National Institute on Aging National Institute of Nursing Research	<ol style="list-style-type: none"> 1. Solid Organ Transplantation: Older Donors and Recipients. 2. This Funding Opportunity Announcement (FOA) issued by the National Institute on Aging (NIA), National Institutes of Health, invites applications that propose basic, clinical, translational, and epidemiological and outcomes research on solid organ transplant (SOT) in older persons. (R01)
1/18/2016	PAR-13-009	National Heart, Lung, and Blood Institute.	<ol style="list-style-type: none"> 1. Secondary Dataset Analyses in Heart, Lung, and Blood Diseases and Sleep Disorders. 2. The purpose of this funding opportunity is to stimulate well-focused secondary analyses of existing human datasets to test innovative hypotheses concerning the epidemiology, pathophysiology, prevention or treatment of diseases/conditions relevant to the NHLBI mission. (R21)
2/8/2016	PA-13-153	National Institute of Diabetes & Digestive and Kidney Diseases National Heart, Lung, and Blood Institute Eunice Kennedy Shriver National Institute of Child Health and Human Development Office of Behavioral and Social Sciences Research	<ol style="list-style-type: none"> 1. Prevention of Overweight or Obesity in early Childhood. 2. Applications should focus on infants and young children (to age 6 years) and emphasize the role of home environment and the influence of family/extended family members and parents (including guardians/ substantial care providers) within the child's home environment. (R01)
5/8/2016	PA-13-145	Office of Research Infrastructure Programs	<ol style="list-style-type: none"> 1. Development of Animal Models and Related Biological Materials for Research. 2. This FOA encourages research grant applications from institutions/organizations that propose to develop, characterize or improve animal models for human disease or to improve diagnosis and control of diseases that might interfere with animal use for biomedical research purposes. (R21)
8/20/2016	PAR-14-080	National Institute of Allergy and Infectious Diseases	<ol style="list-style-type: none"> 1. This Funding Opportunity Announcement (FOA) encourages Research Grant (R01) applications from organizations/institutions in eligible foreign countries that propose research related to infectious diseases that are of interest/importance to that country. (R01)
09/18/2016	PAR-13-254	National Institutes of Health National Institute of Allergy and Infectious Diseases	<ol style="list-style-type: none"> 1. This Funding Opportunity Announcement (FOA) invites submission of investigator-initiated Program Project applications. The proposed programs may address scientific areas relevant to the NIAD mission including the biology, pathogenesis, and host response to microbes, including HIV; the mechanisms of normal immune function and immune dysfunction resulting in autoimmunity, immunodeficiency, allergy, asthma, and transplant rejection; and translational research to develop vaccines, therapeutics, and diagnostics to prevent and treat infectious, immune-mediated, and allergic diseases. 2. Each P01 application submitted to this FOA must include at least two related research projects that share a common central theme, focus, and/or overall objective. (P01)
9/8/2016	PA-13-255	National Institute on Aging National Heart, Lung, and Blood Institute	<ol style="list-style-type: none"> 1. Aging Studies in the Pulmonary System. 2. The purpose of this Funding Opportunity Announcement (FOA) is to promote research to explore age-associated mechanisms in pulmonary physiology, pathology and function, and their relationship to respiratory conditions and diseases that commonly occur in older populations. (R01)
10/16/2016	RFA-HL-14-017	National Heart, Lung, and Blood Institute National Center for Advancing Translational Sciences	<ol style="list-style-type: none"> 1. Onsite Tools and Technologies for Heart, Lung, and Blood Clinical Research Point-of-Care STTR. 2. The purpose of this Funding Opportunity Announcement (FOA) is to support research using advanced technologies to develop novel point-of-care (POC) devices and implement existing technologies in clinical settings with a goal to guide diagnostic and therapeutic efforts for the heart, lung, blood (HLB) and sleep disorders. (R41/R42)
1/6/2017	PAR-14-007	National Institutes of Health National Cancer Institute	<ol style="list-style-type: none"> 1. NCI Small Grants Program for Cancer Research. This funding opportunity announcement (FOA), supports small research projects on cancer that can be carried out in a short period of time with limited resources. 2. The (R03) grant mechanism supports different types of projects including pilot and feasibility studies; secondary analysis of existing data; small, self-contained research projects; development of research methodology; and development of new research technology. (R03)
1/8/2017	PAR-12-298	National Institutes of Health National Cancer Institute	<ol style="list-style-type: none"> 1. This Funding Opportunity Announcement (FOA) invites applications for (P30) Cancer Center Support Grants (CCSGs) for NCI-designated Cancer Centers. CCSGs support two types of cancer centers. 2. Only one application per institution is allowed as described in Section III. Additional Information on Eligibility. 3. <i>Application due date is February 10, 2014.</i> (P30)
1/8/2017	PAR-11-001	National Institutes of Health Division of Program Coordination, Planning and Strategic Initiatives, Office of Research Infrastructure Programs	<ol style="list-style-type: none"> 1. Animal (Mammalian and Nonmammalian) Model, and Animal and Biological Material Resource Grants. 2. This FOA encourages grant applications for national Animal Model, and Animal and Biological Material Resource Centers. These Centers provide support for special colonies of laboratory animals, as well as other resources such as reagents, cultures (cells, tissues, and organs) and genetic stocks that serve the biomedical research community. (P40)

Congratulations To The Following Published Authors

Published Papers from November 2013 – January 2014

1. Aloia, M. S., Arnedt, J. T., Strand, M., Millman, R. P., and Borrelli, B. (2013) Motivational enhancement to improve adherence to positive airway pressure in patients with obstructive sleep apnea: a randomized controlled trial. *Sleep* **36**, 1655-1662.
2. Blackwell, T. S., Tager, A. M., Borok, Z., Moore, B. B., Schwartz, D. A., Anstrom, K. J., Bar-Joseph, Z., Bitterman, P., Blackburn, M. R., Bradford, W., Brown, K. K., Chapman, H. A., Collard, H. R., Cosgrove, G. P., Deterding, R., Doyle, R., Flaherty, K. R., Garcia, C. K., Hagood, J. S., Henke, C. A., Herzog, E., Hogaboam, C. M., Horowitz, J. C., King, T. E., Jr., Loyd, J. E., Lawson, W. E., Marsh, C. B., Noble, P. W., Noth, I., Sheppard, D., Olsson, J., Ortiz, L. A., O'Riordan, T. G., Oury, T. D., Raghu, G., Roman, J., Sime, P. J., Sisson, T. H., Tschumperlin, D., Violette, S. M., Weaver, T. E., Wells, R. G., White, E. S., Kaminski, N., Martinez, F. J., Wynn, T. A., Thannickal, V. J., and Eu, J. P. (2014) Future Directions in Idiopathic Pulmonary Fibrosis Research. An NHLBI Workshop Report. *Am J Respir Crit Care Med* **189**, 214-222.
3. Burnham, E. L., Janssen, W. J., Riches, D. W., Moss, M., and Downey, G. P. (2014) The fibroproliferative response in acute respiratory distress syndrome: mechanisms and clinical significance. *Eur Respir J* **43**, 276-285.
4. Cabana, M. D., Kunselman, S. J., Nyenhuis, S. M., and Wechsler, M. E. (2014) Researching asthma across the ages: Insights from the National Heart, Lung, and Blood Institute's Asthma Network. *J Allergy Clin Immunol* **133**, 27-33.
5. Chen, Y. C., Fan, J. S., Chen, M. H., Hsu, T. F., Huang, H. H., Cheng, K. W., Yen, D. H., Huang, C. I., Chen, L. K., and Yang, C. C. (2014) Risk factors associated with adverse drug events among older adults in emergency department. *Eur* **25**, 49-55.
6. Cho, Y. J., Yi, H., Chun, J., Cho, S. N., Daley, C. L., Koh, W. J., and Jae Shin, S. (2013) The genome sequence of 'Mycobacterium massiliense' strain CIP 108297 suggests the independent taxonomic status of the Mycobacterium abscessus complex at the subspecies level. *PLoS ONE* **8**, e81560.
7. Daley, C. L., and Glassroth, J. (2014) Treatment of pulmonary nontuberculous mycobacterial infections: many questions remain. *Ann Am Thorac Soc* **11**, 96-97.
8. Day, B. J. (2014) Antioxidant therapeutics: Pandora's box. *Free Radic Biol Med* **66**, 58-64.
9. Dorman, S. E., Belknap, R., Graviss, E. A., Reves, R., Schluger, N., Weinfurter, P., Wang, Y., Cronin, W., Hirsch-Moverman, Y., Teeter, L. D., Parker, M., Garrett, D. O., and Daley, C. L. (2014) Interferon-Release Assays and Tuberculin Skin Testing for Diagnosis of Latent Tuberculosis Infection in Healthcare Workers in the United States. *Am J Respir Crit Care Med* **189**, 77-87.
10. Hughes, G., Cruickshank-Quinn, C., Reisdorph, R., Lutz, S., Petrasche, I., Reisdorph, N., Bowler, R., and Kechris, K. (2014) MSPrep--Summarization, normalization and diagnostics for processing of mass spectrometry-based metabolomic data. *Bioinformatics* **30**, 133-134.
11. Jett, J. R., Peek, L. J., Fredericks, L., Jewell, W., Pingleton, W. W., and Robertson, J. F. (2014) Audit of the autoantibody test, EarlyCDT(-) Lung, in 1600 patients: An evaluation of its performance in routine clinical practice. *Lung Cancer* **83**, 51-55.
12. Jiang, D., Persinger, R., Wu, Q., Gross, A., and Chu, H. W. (2013) alpha1-antitrypsin promotes SPLUNC1-mediated lung defense against *Pseudomonas aeruginosa* infection in mice. *Respir Res* **14**, 122.
13. Kolker, E., Ozdemir, V., Martens, L., Hancock, W., Anderson, G., Anderson, N., Aynacioglu, S., Baranova, A., Campagna, S. R., Chen, R., Choiniere, J., Dearth, S. P., Feng, W. C., Ferguson, L., Fox, G., Frishman, D., Grossman, R., Heath, A., Higdon, R., Hutz, M. H., Janko, I., Jiang, L., Joshi, S., Kel, A., Kemnitz, J. W., Kohane, I. S., Kolker, N., Lancet, D., Lee, E., Li, W., Lisitsa, A., Llerena, A., Macnealy-Koch, C., Marshall, J. C., Masuzzo, P., May, A., Mias, G., Monroe, M., Montague, E., Mooney, S., Nesvizhskii, A., Noronha, S., Omenn, G., Rajasimha, H., Ramamoorthy, P., Sheehan, J., Smarr, L., Smith, C. V., Smith, T., Snyder, M., Rapole, S., Srivastava, S., Stanberry, L., Stewart, E., Toppo, S., Uetz, P., Verheggen, K., Voy, B. H., Warnich, L., Wilhelm, S. W., and Yandl, G. (2014) Toward more transparent and reproducible omics studies through a common metadata checklist and data publications. *Omics* **18**, 10-14.
14. Martin, R. J., Flores, S., and Kraft, M. (2014) The lung microbiome. A new frontier in pulmonary medicine: introduction and perspective. *Ann Am Thorac Soc* **11 Suppl 1**, S1-2.
15. Martiniano, S. L., Sontag, M. K., Daley, C. L., Nick, J. A., and Sagel, S. D. (2014) Clinical significance of a first positive nontuberculous mycobacteria culture in cystic fibrosis. *Ann Am Thorac Soc* **11**, 36-44.
16. Mattei, J., Achcar, R. D., Cano, C. H., Macedo, B. R., Meurer, L., Battle, B. S., Groshong, S. D., Kulczynski, J. M., Roesler, R., Dal Lago, L., Brunetto, A. T., and Schwartzmann, G. (2014) Gastrin-releasing Peptide receptor expression in lung cancer. *Arch Pathol Lab Med* **138**, 98-104.
17. Mueller, C., Chulay, J. D., Trapnell, B. C., Humphries, M., Carey, B., Sandhaus, R. A., McElvaney, N. G., Messina, L., Tang, Q., Rouhani, F. N., Campbell-Thompson, M., Fu, A. D., Yachnis, A., Knop, D. R., Ye, G. J., Brantly, M., Calcedo, R., Somanathan, S., Richman, L. P., Vonderheide, R. H., Hulme, M. A., Brusko, T. M., Wilson, J. M., and Flotte, T. R. (2013) Human Treg responses allow sustained recombinant adeno-associated virus-mediated transgene expression. *J Clin Invest* **123**, 5310-5318.
18. Nelson, H. S., Lopez, P., and Curran-Everett, D. (2014) Pain perception and performance of three devices for single-site allergen skin testing. *Allergy Asthma Proc* **35**, 63-65.
19. Ramamoorthy, P., and Nichols, J. J. (2014) Compliance factors associated with contact lens-related dry eye. *Eye Contact Lens* **40**, 17-22.
20. Ramos, C. G., Sun, X., Johnson, E. B., Nelson, H. E., and Gonzalez Bosc, L. V. (2014) Adrenomedullin expression in the developing human fetal lung. *J Investig Med* **62**, 49-55.
21. Roche, N., Reddel, H. K., Agusti, A., Bateman, E. D., Krishnan, J. A., Martin, R. J., Papi, A., Postma, D., Thomas, M., Brusselle, G., Israel, E., Rand, C., Chisholm, A., Price, D., and Respiratory Effectiveness, G. (2013) Integrating real-life studies in the global therapeutic research framework. *Lancet Respir Med* **1**, e29-30.
22. Sutherland, E. R., Busse, W. W., National Heart, L., and Blood Institute's, A. (2014) Designing clinical trials to address the needs of childhood and adult asthma: The National Heart, Lung, and Blood Institute's AsthmaNet. *J Allergy Clin Immunol* **133**, 34-38.e31.
23. Swigris, J. J., Streiner, D. L., Brown, K. K., Belkin, A., Green, K. E., Wamboldt, F. S., and Investigators, I. P. (2014) Assessing exertional dyspnea in patients with idiopathic pulmonary fibrosis. *Respir Med* **108**, 181-188.
24. Voss, J. S., Iqbal, S., Jenkins, S. M., Henry, M. R., Clayton, A. C., Jett, J. R., Kipp, B. R., Halling, K. C., and Maldonado, F. (2014) Development of a multivariate model to predict the likelihood of carcinoma in patients with indeterminate peripheral lung nodules after a nondiagnostic bronchoscopic evaluation. *Hum Pathol* **45**, 41-47.
25. Weber, R. W. (2014) Allergen of the month-melaleuca. *Ann Allergy Asthma Immunol* **112**, A9.