



Baylor
College of
Medicine

2019 ANNUAL REPORT

Allergy, Immunology, and Rheumatology

Baylor College of Medicine

IMMUNOLOGY, ALLERGY and RHEUMATOLOGY 2019 ANNUAL REPORT

The year 2019 has been an exciting year as we continue our growth and building for the future of The Section of Immunology, Allergy and Rheumatology. Our faculty, trainees, and staff make important contributions to the education, research and clinical missions of Baylor College of Medicine, which we herein recognize.

One of the most important highlights in 2019 is the restart of the Allergy and Clinical Immunology Clinic in the Faculty Group Practice. With the arrival of Dr. Sanjiv Sur, a physician-scientist, we are not only providing outstanding care for patients with allergic diseases at the Baylor Clinic, but we have also increased the depth of our research portfolio. The Allergy and Clinical Immunology Clinic will be growing in the coming year and will also help the Section provide related clinical services in our other clinical pavilions as well.

In the past year, we have seen continued success in our research programs. Faculty members in the Section have published 53 peer-reviewed manuscripts. Research programs were supported by 20 grants from the National Institutes of Health, CPRIT, and foundations, including one grant supporting the start of our clinic trials program. Faculty members have also given 18 invited seminars to local, national and international audiences. Finally, our Section is the home of the Biology of Inflammation Center, which provides research and educational support for immune related diseases across the entire College.

I would also like to recognize all of the important contributions that our Section makes in the clinical and educational missions. Our physicians provide outstanding, patient-centered care across all of our clinical pavilions, including the Baylor Clinic, Baylor St. Luke's Medical Center, the Michael E. DeBakey VA Medical Center, Texas Children's Hospital, Harris Health Smith Clinic and Ben Taub General Hospital. All levels of trainees, including medical students, graduate students, physician-assistant students, internal medicine residents, postdoctoral fellows and clinical fellows benefit from our commitment to mentoring and teaching. The quality of our Rheumatology and Allergy fellowship program applicants and matriculating fellows and the programs they train in continues to climb. The IAR faculty is completely dedicated to the clinical and scholarly development of our fellows. We train outstanding physicians and our graduates obtain an outstanding foundation for their subsequent careers both academic and community settings.

This report contains some of achievements of the year past. This is our foundation from which we will continue to build the future of Immunology, Allergy and Rheumatology at Baylor College of Medicine. I am honored and excited to lead our talented and committed Section into a bright future.



Sandeep K. Agarwal, M.D., Ph.D.
Chief, Section of Immunology, Allergy and Rheumatology
Rheumatology Fellowship Program Director
Director, Biology of Inflammation Center
Cullen Trust for Healthcare Endowed Chair in Immunology

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A. LIST OF FACULTY

(alphabetical)

Sandeep K. Agarwal, M.D., Ph.D., Chief, Section of Immunology, Allergy and Rheumatology

Joan Appleyard, M.D.

Kalpana Bhairavarsu, M.D.

David B. Corry, M.D.

Sana Hasan, M.D.

Koa Hosoki, M.D.

Onome Ifoeze, M.D.

Grace Hsiao-Wei Lo, M.D., M.S.

Rashmi Maganti, M.D.

Donald Marcus, M.D., Professor Emeritus

Frank Orson, M.D.

Mesias Pedroza, Ph.D.

Antony Rodriguez, Ph.D.

Roger D. Rossen, M.D.

Sanjiv Sur, M.D.

Tiphannie Vogel, M.D., Ph.D.

Li-Yuan Yu-Lee, Ph.D.

B. Publications

Journal articles

1. Knight JM, Mandal P, Morlacchi P, Mak G, Li E, Madison M, Landers C, Saxton B, Felix E, Gilbert B, Sederstrom J, Varadhachary A, Singh MM, Chatterjee D, **Corry DB**, McMurray JS. Small Molecule Targeting of the STAT5/6 Src Homology 2 (SH2) Domains to Inhibit Allergic Airway Disease. *J Biol Chem* 2018. doi: 10.1074/jbc.RA117.000567
2. Cho M., Lee JE, Lim H, Shin HW, Khalmuratova R, Choi G, Kim HS, Choi WS, Park YJ, Shim I, Kim BS, Kang CY, Kim JO, Tanaka S, Kubo M, Tung HY, Landers CT, **Corry DB**, Kheradmand F, Chung Y. Fibrinogen cleavage products and Toll-like receptor 4 promote the generation of programmed cell death 1 ligand 2-positive dendritic cells in allergic asthma. *J Allergy Clin Immunol* 2018. 142: 530-541.e6
3. Weatherhead JE, Porter P, Coffey A, Haydel D, Versteeg L, Zhan B, Gazzinelli Guimarães AC, Fujiwara R, Jaramillo AM, Bottazzi ME, Hotez PJ, **Corry DB**, Beaumier CM. Ascaris larval infection and lung invasion directly induces severe allergic airway disease in mice. *Infect Immun* 2018. 86:e00533-18.
4. Wu Y, Du S, Johnson JL, Tung H-Y, Landers CT, Liu Y, Seman BG, Wheeler RT, Costa-Mattioli M, Kheradmand F, Zheng H, **Corry DB**. Microglia and Amyloid Precursor Protein Coordinate Control of Transient Candida Cerebritis With Memory Deficits. *Nat Commun* 2019. DOI: 10.1038/s41467-018-07991-4
5. Dietz CJ, Sun H, Yao WC, Citardi MJ, **Corry DB**, and Luong, A. U. Aspergillus fumigatus induction of IL-33 expression in chronic rhinosinusitis is PAR2-dependent. *Laryngoscope* 2019. 11
6. Gu BH, Choi JC, Shen YH, Song LZ, Scheurer ME, Luong A, **Rodriguez A**, Woodruff P, Koth L, **Corry DB**, Kheradmand F, and LeMaire, S. A. Elastin-Specific Autoimmunity in Smokers With Thoracic Aortic Aneurysm and Dissection is Independent of Chronic Obstructive Pulmonary Disease. *J Am Heart Assoc* 2019. 8:e01167
7. Kim M, Gu B, Madison MC, Song HW, Norwood K, Hill AA, Wu WJ, **Corry D**, Kheradmand, F, and Diehl GE (2019) Cigarette Smoke Induces Intestinal Inflammation via a Th17 Cell-Neutrophil Axis. *Front Immunol* 2019. 10: 75
8. Landers CT, Tung HY, Knight JM, Madison MC, Wu Y, Zeng Z, Porter PC, **Rodriguez A**, Flick MJ, Kheradmand F, and **Corry DB**. Selective fibrinogen cleavage by diverse proteinases initiates innate allergic and antifungal immunity through CD11b. *J Biol Chem* 2019. 294:8834-8847
9. Sawant DV, Yano H, Chikina M, Zhang Q, Liao M, Liu C, Callahan DJ, Sun Z, Sun T, Tabib T, Pennathur A, **Corry DB**, Luketich JD, Lafyatis R, Chen W, Poholek AC, Bruno

TC, Workman CJ, and Vignali DAA. Adaptive plasticity of IL-10+ and IL-35+ Treg cells cooperatively promotes tumor T cell exhaustion. *Nat Immunol* 2019 DOI.org/10.1038/s41590-019-0346-9

10. Yuan X, Chang CY, You R, Shan M, Gu BH, Madison M, Diehl G, Perusich S, Song LZ, Cornwell L, Rossen RD, Wetsel, R, Kimal R, Coarfa C, Eltzschig H, **Corry DB**, and Kheradmand F. (2019) Cigarette smoke-induced reduction of C1q promotes emphysema. *JCI insight* 2019. 21 DOI: 10.1172/jci.insight.124317
11. Madison MC, Landers CT, Gu BH, Chang CY, Tung HY, You R, Hong MJ, Baghaei N, Song LJ, Porter P, Putluri N, Salas R, Gilbert BE, Levental I, Campen MJ, **Corry DB**, Kheradmand, F. Electronic cigarettes disrupt lung lipid homeostasis and innate immunity independent of nicotine. *J Clin Invest* 2019 (In Press).
12. Dietz CJ, Sun H, Yao WC, Citardi MJ, **Corry DB**, Luong AU. Aspergillus fumigatus induction of IL-33 expression in chronic rhinosinusitis is PAR2-dependent. *Laryngoscope* 2019:11.
13. Gu BH, Sprouse ML, Madison MC, Hong MJ, Yuan X, Tung HY, Landers CT, Song LZ, **Corry DB**, Bettini M, Kheradmand F. A Novel Animal Model of Emphysema Induced by Anti-Elastin Autoimmunity. *J Immunol* 2019; 203:349-59.
14. Knight JM, Li E, Tung HY, Landers C, Wheeler J, Kheradmand F., **Corry DB**. A Fungal Protease Model to Interrogate Allergic Lung Immunity. *Methods Mol Biol* 2018. 1799: 1-9.
15. Li E; Landers CT; Tung HY; Knight JM; Marshall Z; Luong AU; **Rodriguez A**; Kheradmand F; **Corry DB**. Fungi in mucoobstructive airway diseases. *Annals ATS* 2018. 15 (Suppl 3) S198-S204.
16. Li E, Knight JM, Wu Y, Luong A, **Rodriguez A**, Kheradmand F, **Corry DB**. Airway mycosis in allergic airway disease. *Adv Immunol* 2019; 142:85-140.
17. **Lo GH**, Schneider E, Driban JB, Price LL, Hunter DJ, Eaton CB, Hochberg MC, Jackson RD, Kwok CK, Nevitt MC, Lynch JA, McAlindon TE; OAI Investigators Group. Periarticular bone predicts knee osteoarthritis progression: Data from the Osteoarthritis Initiative. *Semin Arthritis Rheum*. 2018 Oct;48(2):155-161. PMID: 29449014
18. MacKay JW, Kapoor G, Driban JB, **Lo GH**, McAlindon TE, Toms AP, McCaskie AW, Gilbert FJ. Association of subchondral bone texture on magnetic resonance imaging with radiographic knee osteoarthritis progression: data from the Osteoarthritis Initiative Bone Ancillary Study. *European Radiology*. 2018 Nov;28(11):4687-4695. PMID: 29721684
19. Harkey MS, Davis JE, Lu B, Price LL, Ward RJ, MacKay JW, Eaton CB, **Lo GH**, Barbe MF, Zhang M, Pang J, Stout AC, McAlindon TE, Driban JB. Early pre-radiographic

structural pathology precedes the onset of accelerated knee osteoarthritis. *BMC Musculoskeletal Disorders*. 2019. May 22; 20 (1):241. PMID: 31113401

20. **Lo GH**, Musa SM, Driban JB, Kriska AM, McAlindon TE, Souza RB, Petersen NJ, Storti KL, Eaton CB, Hochberg MC, Jackson RD, Kwoh CK, Nevitt MC, Suarez-Almazor ME. Running does not increase symptoms or structural progression in people with knee osteoarthritis: data from the osteoarthritis initiative. *Clinical Rheumatology*. 2018 Sep;37(9):2497-2504. PMID: 29728929
21. Harkey MS, Price LL, McAlindon TE, Davis JE, Stout AC, Lu B, Zhang M, Eaton CB, Barbe MF, **Lo GH**, Driban JB. Association Between Declining Walking Speed and Increasing Bone Marrow Lesion Volume and Effusion Volume in Individuals with Accelerated Knee Osteoarthritis. *Arthritis Care Res (Hoboken)*. 2019 Feb;71(2):259-27. PMID: 29882630
22. **Lo GH**, Driban JB. Reply. *Arthritis Care Res (Hoboken)*. 2018 Jun;70(6):957. PMID: 28544817
23. Davis JE, Ward RJ, MacKay JW, Lu B, Price LL, McAlindon TE, Eaton CB, Barbe MF, **Lo GH**, Harkey MS, Driban JB. Effusion-synovitis and infrapatellar fat pad signal intensity alteration differentiate accelerated knee osteoarthritis. *Rheumatology (Oxford)*. 2018 Oct 20. Epub ahead of print PMID: 30346594
24. Driban JB, Davis JE, Lu B, Price LL, Ward RJ, MacKay JW, Eaton CB, **Lo GH**, Barbe MF, Zhang M, Pang J, Stout AC, Harkey MS, McAlindon TE. Accelerated Knee Osteoarthritis is Characterized by Destabilizing Meniscal Tears and Pre-Radiographic Structural Disease Burden. *Arthritis Rheumatol*. 2018 Dec 28. Epub ahead of print. PMID: 30592385
25. **Lo GH**, Song J, McAlindon TE, Hawker GA, Driban JB, Price LL, Eaton CB, Hochberg MC, Jackson RD, Kwoh CK, Nevitt MC, Dunlop DD. Validation of a new symptom outcome for knee osteoarthritis: the Ambulation Adjusted Score for Knee pain. *Clin Rheumatol*. 2019 Mar;38(3):851-858. PMID: 30417223
26. Allen KD, **Lo G**, Abbate LM, Floegel TA, Lindquist JH, Coffman C, Oddone EZ, Taylor SS, Hall K. Composite measures of physical activity and pain associate better with functional assessments than pain alone in knee osteoarthritis. *Clin Rheumatol*. 2019 Mar 30. Epub ahead of print. PMID: 30929153
27. Harkey MS, Davis JE, Lu B, Price LL, Eaton CB, **Lo GH**, Barbe MF, Ward RJ, Zhang M, Liu SH, Lapane KL, MacKay JW, McAlindon TE, Driban JB. Diffuse tibiofemoral cartilage change prior to the development of accelerated knee osteoarthritis: Data from the osteoarthritis initiative. *Clin Anat*. 2019 Apr;32(3):369-378. PMID: 30521068

28. Davis JE, Harkey MS, Ward RJ, MacKay JW, Lu B, Price LL, Eaton CB, **Lo GH**, Barbe MF, McAlindon TE, Driban JB. Accelerated knee osteoarthritis is associated with pre-radiographic degeneration of the extensor mechanism and cruciate ligaments: data from the Osteoarthritis Initiative. *BMC Musculoskelet Disord*. 2019 Jun 29;20(1):308. PMID: 31253142
29. Karmouty-Quintana H, Molina JG, Philip K, Bellocchi C, Gudenkauf B, Wu M, Chen NY, Collum SD, Ko J, **Agarwal SK**, Assassi S, Zhong H, Blackburn MR, Weng T. The antifibrotic effect of A2b adenosine receptor antagonism in a mouse model of dermal fibrosis. *Arthritis Rheumatol*. 2018 Oct;70(10):1673-1684. doi: 10.1002/art.40554. Epub 2018 Aug 6. PMID:29771006
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31. Pedroza M, To S, Assassi S, Wu M, Tweardy D, **Agarwal SK**. Role of STAT3 in skin fibrosis and transforming growth factor beta signaling. *Rheumatology (Oxford)*. 2018 Oct 1;57(10):1838-1850. doi: 10.1093/rheumatology/kex347. PMID 29029263.
32. Pan T, Yu K-J, Bird J, Satcher R, Moon B, Gallick GE, Lin S-C, Jonasch E, Lewis V, Yu G, Wood C, **Yu-Lee L-Y**, Song J, Tannir N, Lin P, and Lin S-H (2018). BIGH3 promotes osteolytic lesions in renal cell carcinoma bone metastasis by inhibiting osteoblast differentiation. *Neoplasia* 20:32-43. PMID: 29190493
33. Yu G, Cheng C-J, Lin S-C, Lee Y-C, Frigo D, **Yu-Lee L-Y**, Gallick GE, Titus M, Nutt L, and Lin S-H (2018). Organelle-derived acetyl-CoA promotes prostate cancer cell survival, migration, and metastasis via activation of calmodulin kinase II. *Cancer Res*. 78:2490-2502. PMID: 29535221
34. **Yu-Lee L-Y**, Yu G, Lee Y-C, Lin S-C, Pan J, Pan T, Yu K-J, Liu B, Creighton CJ, Rodriguez JC, Villalobos PA, Wistuba II, de Nadal E, Posas F, Gallick GE and Lin S-H (2018). Osteoblast-secreted factors mediate dormancy of metastatic prostate cancer in the bone via activation of the TGFβRIII-p38MAPK-pS249/T252RB pathway. *Cancer Res*. 78:2911-2924. PMID: 29514796
35. Lin S-C, **Yu-Lee L-Y**, Lin S-H (2018). Osteoblastic factors in prostate cancer bone metastasis. *Curr. Osteoporos. Rep*. 16:642-647. PMID: 30203251
36. Espinosa M, Ding B, Choi K, Cohen D, Marcelli M, **Ifoeze O**. A simultaneous presentation of drug induced lupus and drug induced ANCA vasculitis secondary to hydralazine use in a patient with sarcoidosis. *Proc (Baylor Univ Med Cent)*. 2019; 32: 231-234. PMID 31191136.

37. Fabre A, Marchal S, Forbes LR, **Vogel TP**, Barlogis V, Triolo V, Rohrllich P-S, Etienne B, Frankel D, Ambrosetti D, Hoflack M, Baque M, Bosdure E, Baravalle M, Carsin A, Dubus J-C, Giovannini-Chami L. STAT3 GOF: a new kid on the block in interstitial lung diseases. *American Journal of Respiratory and Critical Care Medicine* (2018) 197:e22.
38. Chinn I, Eckstein OS, Peckham-Gregory EC, Goldberg BR, Forbes LR, Nicholas SK, Mace EM, **Vogel TP**, Abhyankar HA, Diaz MI, Heslop HE, Krance RA, Martinez CA, Nguyen TC, Bashir DA, Goldman JR, Stray-Pedersen A, Pedroza LA, Poli MC, Aldave Becerra JC, McGhee SA, Al-Herz W, Chamdin A, Coban-Akdemir ZH, Jhangiani SN, Muzny DM, Cao TN, Hong DN, Gibbs RA, Lupski JR, Orange JS, McClain KL, Allen CE. Genetic and mechanistic diversity in pediatric hemophagocytic lymphohistiocytosis. *Blood* (2018) 132:89.
39. Poli MC, Ebstein F, Nicholas SK, de Guzman MM, Forbes LR, Chinn IK, Mace EM, **Vogel TP**, Carisey AF, Benavides F, Coban-Akdemir ZH, Gibbs RA, Jhangiani SN, Muzny DM, Carvalho CMB, Schady DA, Jain M, Rosenfeld JA, Emrick L, Lewis RA, Lee B, Undiagnosed Diseases Network members, Zieba BA, Kury S, Kruger E, Lupski JR, Bostwick BL, Orange JS. Heterozygous truncating variants in POMP escape nonsense-mediated decay and cause a unique immune dysregulatory syndrome. *American Journal of Human Genetics* (2018) 102:1126.
40. Forbes LR, **Vogel TP**, Cooper MA, Castro-Wagner J, Schussler E, Weinacht KG, Plant A, Su HC, Allenspach EJ, Slatter M, Abinun M, Lilic D, Cunningham-Rundles C, Eckstein O, Olbrich P, Guillerman RP, Patel NC, Demirdag YY, Zerbe C, Freeman AF, Holland SM, Szabolcs P, Gennery A, Torgerson TR, Milner JD, Leiding JW. Jakinibs for the treatment of immunodysregulation in patient with gain of function STAT1 or STAT3 mutations. *Journal of Allergy and Clinical Immunology* (2018) 142:1665.
41. Giovannini-Chami L, **Vogel TP**, Forbes LR, Fabre A, Trojani M-C, Leroy S, Antunes O, Vincent-Mefitiot N, Hiéronimus S, Baque M, Roux C, Tieulié N. STAT3-GOF: a new etiology of severe rheumatic disease. *Rheumatology* (2018) 58:365.
42. Splinter K, Adams DR, Bacino CA, Bellen HJ, Bernstein JA, Cheattle-Jarvela AM, Eng CM, Esteves C, Gahl WA, Hamid R, Jacob HJ, Kikani B, Koeller DM, Kohane IS, Lee BH, Loscalzo J, Luo X, McCray AT, Metz TO, Mulvihill JJ, Nelson SF, Palmer CGS, Phillips JA, Pick L, Postlethwait JH, Reuter C, Shashi V, Sweetser DA, Tifft CJ, Walley NM, Wangler MF, Westerfield M, Wheeler MT, Wise AL, Worthey EA, Yamamoto S, Ashley EA for the Undiagnosed Diseases Network*. Effect of genetic diagnosis on patients with previously undiagnosed disease. *New England Journal of Medicine* (2018) 379: 2131.
43. Chaimowitz NS, Branch J, Reyes A, Vargas-Hernandez A, Orange JS, Forbes LR, Ehlayel M, Purayil SC, Ali Al-Nesf M, **Vogel TP**. A novel STAT3 mutation in a Qatari patient with hyper-IgE syndrome. *Frontiers in Pediatrics* (2019) 7: article 130.

44. Fabre A, Marchal S, Barlogis V, Mari B, Barbry P, Rohrlach P-S, Forbes LR, **Vogel TP***, Giovannini-Chami L. Clinical aspects of STAT3 gain-of-function germline mutations: a systematic review. *Journal of Allergy and Clinical Immunology: In Practice* (2019) 7: 1958.
45. Collum SD, Molina JG, Hanmandlu A, Bi W, **Pedroza M**, Mertens TCJ, Wareing N, Wei W, Wilson C, Sun W, Rajadas J, Bollyky PL, Philip KM, Ren D, Thandavarayan RA, Bruckner BA, Xia Y, Blackburn MR, Karmouty-Quintana H. Adenosine and hyaluronan promote lung fibrosis and pulmonary hypertension in combined pulmonary fibrosis and emphysema. *Dis Model Mech*. 2019 May 15;12(5).
46. Wu AY, **Sur S**, Grant JA, Tripple JW. Interleukin-4/interleukin-13 versus interleukin-5: a comparison of molecular targets in biologic therapy for the treatment of severe asthma. *Curr Opin Allergy Clin Immunol*. 2019 Feb;19(1):30-37
47. Wu AY, **Sur S**, Grant JA. Treating insect bite hypersensitivity in horses by using active vaccination against IL-5. *J Allergy Clin Immunol*. 2018 Oct;142(4):1060-1061.
48. Tian B, Hosoki K, Liu Z, Yang J, Zhao Y, Sun H, Zhou J, Rytting E, Kaphalia L, Calhoun WJ, **Sur S**, Brasier AR. Mucosal bromodomain-containing protein 4 mediates aeroallergen-induced inflammation and remodeling. *J Allergy Clin Immunol*. 2019 Apr;143(4):1380-1394.
49. Hosoki K, Jaruga P, Itazawa T, Aguilera-Aguirre L, Coskun E, Hazra TK, Boldogh I, Dizdaroglu M, **Sur S**. Excision release of 5-hydroxycytosine oxidatively induced DNA base lesions from the lung genome by cat dander extract challenge stimulates allergic airway inflammation. *Clin Exp Allergy*. 2018 Dec;48(12):1676-1687.
50. Hosoki K, Rajarathnam K, **Sur S**. Attenuation of murine allergic airway inflammation with a CXCR1/CXCR2 chemokine receptor inhibitor. *Clin Exp Allergy*. 2019 Jan;49(1):130-132.
51. Iardino A, Garner O, Rajasekar S, Alexander A, Helekar A, Shim G, Loveman D, Chemitiganti R, **Bhairavarasu K**. Atypical presentation of acute disseminated encephalomyelitis (ADEM) in a middle-aged adult. *Am J Case Rep*. 2019 Mar 19;20:361-365. PMID: 30886135
52. Pal V, Ahmed Y, Singh S, **Bhairavarasu K**, Oud L. Awareness of birth cohort hepatitis C testing recommendation among baby boomers: an exploratory survey. *South Med J*. 2019 Mar;112(3):147-153. PMID: 30830227
53. Kim ST, **Bittar M**, Kim HJ, Neelapu SS, Zurita AJ, Nurieva R, Suarez-Almazor ME. Recurrent pseudogout after therapy with immune checkpoint inhibitors: a case report with immunoprofiling of synovial fluid at each flare. *J Immunother Cancer*. 2019 May 14;7(1):126. PMID:31088575.

C. Presentations and Seminars

Sandeep Agarwal

1. “Does cadherin-11 regulate the development of lung fibrosis”, BCM Seminars in Immunology Research, Houston, TX, September 2018.
2. “Does cadherin-11 regulate the development of lung fibrosis”, Michael E. DeBakey Veterans Administration Medical Center Center for Translational Research on Inflammatory Diseases Research Seminar. Houston, TX, October 2018.
3. “How novel therapies are paving the way for better outcomes in rheumatoid arthritis”, CME, Atlanta, GA, May 2019
4. “Cases in Rheumatology” Pri-Med Conference, Houston, Texas, May 2019.
5. “How novel therapies are paving the way for better outcomes in rheumatoid arthritis”, CME, Dallas, Texas, May 2019
6. “How novel therapies are paving the way for better outcomes in rheumatoid arthritis”, CME, Oklahoma City, OK, May 2019

David Corry

1. “Fungal Virulence Factors and the Pathogenesis of Allergic Airway Disease”. A Symposium on Immunology of Human Diseases, Santa Fe, NM. 101st June 2019
2. “Fungal Pathogenesis of allergic airway disease”. Annual meeting of the Guangzhou Medical Association, Guangzhou, China, June 2019.

Antony Rodriguez

1. "Role of let-7 inflammatory lung disease", Baylor College of Medicine Roger Rossen Retreat in Immunology. April 2019.

Tiphanie Vogel

2. “STAT3 GOF syndrome: Searching for Broad Insight using a Rare Disease.” The University of Rochester Medical Center Allergy, Immunology, and Rheumatology Rounds. Rochester, New York. July 2018.
3. “STAT3 GOF syndrome: Searching for Broad Insight using a Rare Disease.” Cincinnati Children’s Hospital Division of Rheumatology. Cincinnati, Ohio. January 2019.

4. “STAT3 GOF syndrome: Searching for Broad Insight using a Rare Disease.” Children’s Hospital of Pittsburgh. Pittsburgh, Pennsylvania. March 2019.
5. “The Tightrope of STAT3 in Immune Dysregulation.” Texas Medical Center Hematopoiesis and Inflammation Symposium. Houston, Texas. November 2018.
6. “Uncovering Impactful Genetic Causes of Immune Dysregulation.” The 4th Biennial William T. Shearer Innovations in Primary Immunodeficiency and Clinical Immunology. Houston, Texas. March 2019.
7. “Towards a Mechanistic Understanding of STAT3 GOF.” Baylor College of Medicine Roger Rossen Retreat in Immunology. April 2019.

Sanjiv Sur

1. Developed workshop session on Sputum Transcriptomics of Neutrophilic Asthma and served as moderator at American Academy of Allergy Asthma and Immunology meeting, February 2019.

Grace Lo

1. “Epidemiology of Osteoarthritis”. The American Society for Bone and Mineral Research Symposium on Skeletal Contributions to Joint Degenerations and Osteoarthritis. September 2018

B. Awards and Honors

Sandeep Agarwal

Cullen Trust for Healthcare Endowed Chair in Immunology (2019)

David Corry

Clarence and Irene H. Fulbright Chair in Pathology (March, 2018)

Antony Rodriguez

Gillson Longenbaugh Foundation Award

Tiphannie Vogel

The Kelly Award for Juvenile Arthritis Research
Arthritis National Research Foundation Scholar

Sanjiv Sur

Provisional Patent. “Methods and Compositions Related to Recombinant Neil2”. Equal Inventors
Sanjiv Sur, Tapas Hazra and Ashok Chopra for use of Neil2 in many types of inflammation.

Provisional Patent. “BRD4 Inhibitor Treatment of IgE-Mediated Diseases”. Equal Inventors
Sanjiv Sur, Allan Brasier, Jia Zhou, Bing Tian for use of BRD4 Inhibitor in allergic diseases.

E. Professional organizations, Editorial boards

Sandeep Agarwal

American Association of Immunology – Member
American College of Rheumatology – Member
American Thoracic Society – Member

Joan Appleyard

American College of Rheumatology – Member
Spondylitis Research and Treatment Network (SPARTAN) – Member

Kalpana Bhairavarasu

American College of Rheumatology – Member

David Corry

American Association of Allergy, Asthma, and Immunology – Member
American Clinical and Climatological Association – Member
American Society for Clinical Investigation – Member
Association of American Physicians – Member
Society for Mucosal Immunology – Member

Sana Hasan

Allergy, Asthma & Immunology Society
The Greater Houston Allergy, Asthma & Immunology Society

Onome Ifoeze

Alliance for Academic Internal Medicine – Member
American College of Physicians – Member
American College of Rheumatology – Member
S.L.E. Lupus Foundation – Member

Grace Lo

American College of Rheumatology – Member
Osteoarthritis Research Society International – Member Osteoarthritis and Cartilage – Editorial board member

Rashmi Maganti

American College of Rheumatology – Member

Donald Marcus

American College of Rheumatology – Master

Antony Rodriguez

Genetics Society - Member

Tiphanie Vogel

American Academy of Pediatrics—Member

American College of Rheumatology—Member

AMIGO Mentorship Program—Mentor and Mentee

American Association of Immunologists--Member

Childhood Arthritis and Rheumatology Research Alliance—Member

Scientific Advisory Committee—Member

Clinical Immunology Society—Member

Federation of Clinical Immunology Societies—Member

Frontiers in Immunology, Primary Immunodeficiencies – Editorial board member

Frontiers in Pediatrics, Pediatric Immunology – Editorial board member

F. Grants

Kalpana Bhairavarasu

Grant Title: Implementing Decision Aid for Lupus - IDEAL STRATEGY -

Funding Agency: PCORI (Patient Centered Outcomes Research Institute)

Investigator Relationship: Principal Investigator - for BCM –Kalpana Bhairavarasu, MD
In collaboration with Jasvinder Singh, MD, MPH, University of Alabama, Birmingham)

David Corry

Grant Title: Fungal Pathogenesis of Moderate to Severe Asthma

Funding Agency: NIH; AI135803 R01

Investigator Relationship: Principal Investigator

Grant Title: Immunology Scientist Training Grant

Funding agency: NIH/NIAID AI053831 T32

Investigator relationship: Principal Investigator

Grant Title: Mechanism and function of Let-7, a novel modulator of Th17-dependent emphysema

Funding agency: NIH/NHLBI R01HL140398-01A1

Investigator relationship: Principal Investigator

Grant Title: The Houston “Breathe Easy” Healthy Homes-Based Model

Funding agency: USDHHS; 54793-A1

Investigator relationship: Co-Investigator (PI: W. Hamilton)

Grace Lo

Grant Title: Feasibility of a Novel Approach to Studying Early Knee Osteoarthritis: an Offspring Study

Funding Agency: NIH/NIAMS R03 AR069323

Investigator Relationship: Principal Investigator

Grant Title: A Pilot Randomized Controlled Trial of Hand Traction for Nodal Osteoarthritis

Funding Agency: NIH/NIAMS

Investigator Relationship: Principal Investigator

Rashmi Maganti

Grant Title: A Randomized, double-blind placebo controlled multicenter phase 2 dose ranging study to assess the safety and efficacy of multiple VAY736 doses administered subcutaneously in patients with moderate to severe primary Sjögren's syndrome

Funding Agency: Novartis Pharmaceuticals

Investigator Relationship: Principal Investigator

Antony Rodriguez

Grant Title: Role of let-7 microRNA in chronic obstructive pulmonary disease (Rodriguez)

Funding Agency: Gillson-Longenbaugh Foundation Award

Investigator Relationship: Principal Investigator

Grant Title: Mechanism and function of let-7, a novel modulator of Th17-dependent emphysema

Funding Agency: NIH (NHLBI) R01HL140398-01A1

Investigator Relationship: co- Principal Investigator

Sanjiv Sur

Grant Title: Role of Cytosolic DNA-multiprotein Interactome in Allergic Airway Inflammation

Funding Agency: NIH/NHLBI R01 HL145477-01

Investigator Relationship: Principal Investigator

Grant Title: Role of Cytosolic DNA sensor in Allergic Airway Inflammation

Funding Agency: Dept. of Defense grant, DAMD W81XWH-18-1-0743

Investigator Relationship: Principal Investigator

Tiphannie Vogel

Grant Title: BRIDGE, Baylor Rheumatology Initiative: Developing and Guiding Engagement

Funding Agency: Rheumatology Research Foundation Medical Student Preceptorship

Investigator Relationship: Principal Investigator

Grant Title: BCM Clinical Site for an Undiagnosed Diseases Network (UDN)

Funding Agency: NIH, 1 U01 HG007709-01

Investigator Relationship: Rheumatology Lead (PI: Brendan Lee)

Grant Title: A Targeted Approach to Cytokine Blockade in Juvenile Arthritis (Vogel)

Funding Agency: Thrasher Research Fund

Investigator Relationship: Principal Investigator

Grant Title: Validating STAT3 as a Therapeutic Target in Arthritis (Vogel)

Funding Agency: Arthritis National Research Foundation Grant
Investigator Relationship: Principal Investigator

Li-Yuan Yu-Lee

Grant Title: Endothelial-to-osteoblast conversion in prostate cancer bone metastasis
Funding Agency: NIH RO1; CA174798-06A1
Investigator Relationship: Principal Investigator

Grant Title: Polo-like Kinase 1 as a Novel Molecular Target for the Treatment of Asthma
Funding Agency: Biology of Inflammation Center Pilot Grant
Investigator Relationship: Principal Investigator

Grant Title: Regulation of Dormancy of Metastatic Prostate Cancer Cells by Bone Microenvironment
Funding Agency: Cancer Prevention and Research Institute of Texas (CPRIT)
Investigator Relationship: Co-investigator

Grant Title: A Novel Therapy Targeting Prostate Cancer-Induced Aberrant Bone Formation
Funding Agency: Cancer Prevention and Research Institute of Texas (CPRIT)
Investigator Relationship: Co-investigator