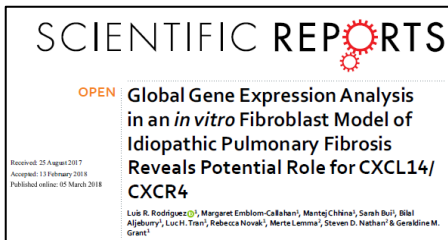


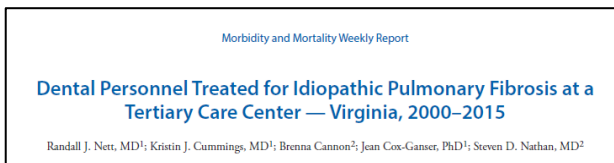
Academic Accomplishments 2018 (Inova authors bolded)

Original Research Manuscripts (accepted or published)

1. Agbor-Enoh S, Jackson A, Tunc I, Berry G, **Cochrane A**, Grimm D, Davis A, Shah P, **Brown AW**, Wang Y, Timofte I, **Shah P**, Gorham S, Wylie J, Goodwin N, Jang MK, Marishta A, Bhatti K, Fideli U, Yang Y, Luikart H, Piroozna M, Zhu J, Iacono A, **Nathan SD**, Orens J, Valantine HA, Khush K. Clinical antibody-mediated rejection (AMR) is a late manifestation of allo-antibody-associated injury. *J Heart Lung Transplant*. 2018 Jul;37(7):925-932.
2. Woolstenhulme JG, Guccione AA, Herrick JE, Collins JP, **Nathan SD**, Chan LE, Keyser RE. Left Ventricular Function Before and After Aerobic Exercise Training in Women Who Have Pulmonary Arterial Hypertension. Accepted to *Journal of Cardiopulmonary Rehabilitation and Prevention*. Accepted Oct 3 2018
3. Rodriguez LR, Emblom-Callahan M, Chhina M, Bui S, Aljeburri B, Tran LH, Novak R, **Nathan SD**, Grant GM. Novel Role for CXCL14/CXCR4 revealed through Global Gene Expression Analysis in an in vitro Fibroblast Model of Idiopathic Pulmonary Fibrosis. *Sci Rep*. 2018 Mar 5;8(1):3983. doi: 10.1038/s41598-018-21889-7.



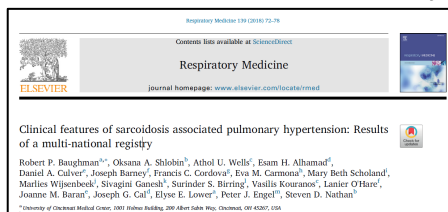
4. **Warren WA, Franco-Palacios D, King CS, Shlobin OA, Nathan SD, Katugaha S, Mani H, Brown AW**. A 24-year-old Woman with Precipitous Respiratory Failure Requiring Lung Transplantation. *Chest* 2018;153:e53-e56 (case report)
5. Yeo J, Chen T, Crawford EL, Zhang X, Khuder S, Levin A, Nana-Sinkam P, Massion PP, Arenberg DA, Midthun D, Mazzone PJ, **Nathan SD**, Wainz R, Silvestri G, Tita J, Willey JC. A COPD classifier based on targeted next generation sequencing analysis of genome maintenance genes in normal airway epithelial cells. *BMC Pulm Med*. 2018 Mar 5;18(1):42. doi: 10.1186/s12890-018-0603-y.
6. Nett RJ, Cummings KJ, **Cannon B**, Cox-Ganser J, **Nathan SD**. Dental Personnel Treated for Idiopathic Pulmonary Fibrosis at a Tertiary Care Center — Virginia, 2000–2015. *MMWR Weekly* March 9 2018; 67, No. 9



7. Behr J, **Nathan SD**, Harari S, Wyuts W, Kirchgassler K, Bengus M, Gilberg F, Wells A. Sildenafil added to pirfenidone in patients with advanced idiopathic pulmonary fibrosis and pulmonary hypertension: A Phase IIb randomised double-blind placebo-controlled study. *Respir Med*. 2018 May;138:13-20. doi: 10.1016/j.rmed.2018.03.019.
8. **King CS, Brown AW, Shlobin O, Weir N, Libre M, Franco-Palacios D, Ahmad S, Nathan SD**. Incidence and Impact of WHO Group 3 Pulmonary Hypertension in Idiopathic Nonspecific Interstitial Pneumonia. *Eur Respir J* 2018; 52: 1800545. doi: 10.1183/13993003.00545-2018
9. Raghu G, van den Blink B, Hamblin MJ, **Brown AW**, Golden JA, Ho LA, Wijsenbeek MS, Vasakova M, Pesci A, Antin-Ozerkis DE, Meyer KC, Kreuter M, Santin-Janin H, Mulder GJ, Bartholmai B, Gupta R, Richeldi L. Effect of

Recombinant Human Pentraxin 2 vs Placebo on Change in Forced Vital Capacity in Patients With Idiopathic Pulmonary Fibrosis: A Randomized Clinical Trial. *JAMA*. 2018 Jun 12;319(22):2299-2307.

10. Baughman RP, **Shlobin OA**, Alhamad EH, Cal GJ, Porquero EC, Biring S, Lower EE, Engel PJ, **Nathan SD**. Clinical features of sarcoidosis associated pulmonary hypertension: results of a multi-national registry. *Respir Med*. 2018 Jun;139:72-78. doi: 10.1016/j.rmed.2018.04.015.



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13. **Nathan SD**, Lancaster LH, Albera C, Glassberg MK, Swigris JJ, Gilberg F, Kirchgassler KU, Limb SL, Petzinger U, Noble PW. Dose modification and dose intensity during treatment with pirfenidone: analysis of pooled data from three multinational Phase III trials. *BMJ Open Respir Res*. 2018 Aug 2;5(1):e000323. doi: 10.1136/bmjresp-2018-000323. eCollection 2018.
14. Rhodes C et al. (**Nathan SD** among 118 co-authors). Genetic determinants of risk and survival in pulmonary arterial hypertension. *Lancet Res Med* Published online December 5, 2018 [http://dx.doi.org/10.1016/S2213-2600\(18\)30409-0](http://dx.doi.org/10.1016/S2213-2600(18)30409-0)
15. **Nathan SD**, Costabel U, Glaspole I, Glassberg MK, Lancaster LH, Lederer DJ, Pereira CA, Trzaskoma B, Morgenthien E, Limb SL, Wells AU. Incidence of Multiple Progression Events: Pooled Analysis of Patients With Idiopathic Pulmonary Fibrosis Treated With Pirfenidone. accepted to *Chest* November 5th 2018
16. Raghu G, Flaherty KR, Lederer DJ, Lynch DA, Colby TV, Myers JL, Groshong SD, Larsen BT, Chung JH, Steele MP, Benzaquen S, Calero K, Case A, Criner G, Guerrero J, **Nathan SD**, Rai N, Ramaswamy M, Hagemeyer L, Davis JR, Gauhar U, Pankratz DG, Choi Y, Huang J, Walsh PS, Neville H, Lofaro LR, Barth NM, Kennedy GC, Brown KK, Martinez FJ. Diagnostic accuracy of conventional transbronchial biopsies through the use of a molecular classifier for usual interstitial pneumonia pattern. Accepted to *Lancet Res Med* 12/17/2018

Reviews

1. **Brown AW**, **Nathan SD**. The Value and Application of the Six Minute Walk Test in Idiopathic Pulmonary Fibrosis. *Ann Am Thorac Soc*. 2018 Jan;15(1):3-10.

FOCUSED REVIEW

The Value and Application of the 6-Minute-Walk Test in Idiopathic Pulmonary Fibrosis

A. Whitney Brown and Steven D. Nathan

Advanced Lung Disease and Transplant Program, Inova Heart and Vascular Institute, Inova Fairfax Hospital, Falls Church, Virginia

2. Benza R, Raina A, Kanwar MK, **Nathan SD**, Mathai SC. sGC stimulators: evidence in pulmonary hypertension and beyond. accepted to the Journal of Rare Diseases Research and Treatment 11/2/17.
3. **Aryal S, Nathan SD**. An Update on Emerging Drugs for the Treatment of Idiopathic Pulmonary Fibrosis. Expert Opinion on Emerging Drugs. Expert Opin Emerg Drugs. 2018 Jun;23(2):159-172. doi: 10.1080/14728214.2018.1471465.
4. **Aryal S, Nathan SD**. Single vs Bilateral Lung Transplantation: When and Why. Curr Opin Organ Transplant. 2018 Jun;23(3):316-323. doi: 10.1097/MOT.0000000000000527.

REVIEW



Single vs. bilateral lung transplantation: when and why

Shambhu Aryal and Steven D. Nathan

5. El-Chemaly S, O'Brien KJ, **Nathan SD**, Weinhouse GL, Goldberg HJ, Connors JM, CuiY, Astor TL, Camp PC, Rosas IO, WoldeHanna ML, Speransky V, Merideth MA, Gahl WA, Gochuico BR. Clinical management and outcomes of patients with Hermansky-Pudlak syndrome pulmonary fibrosis evaluated for lung transplantation. PLoS One. 2018 Mar 16;13(3):e0194193. doi: 10.1371/journal.pone.0194193. eCollection 2018.
6. **King CS, Ryan L, Singh R**. VA ECMO Review. Crit Care Clinics.
7. **King CS, Brown AW, Aryal S, Ahmad K**, Donaldson S. Critical Care of the Adult Cystic Fibrosis Patient. Chest. 2018; pii: S0012-3692(18)31123-1. doi: 10.1016/j.chest.2018.07.025. [Epub ahead of print].
8. **Ahmad K, Nathan SD**. Novel management strategies for idiopathic pulmonary fibrosis. Expert Rev Respir Med. 2018 Aug 23. doi: 10.1080/17476348.2018.1513332



9. **King CS, Shlobin OA**. Ask the Expert: Thyroid Disease in PAH. Advances in Pulm HTN. Submitted

Editorial

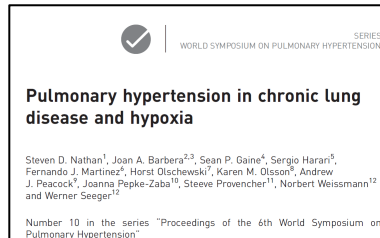
Brown AW. Unclassifiable Interstitial Lung Disease: Time to Shrink the Black Box. Annals ATS 2018; 15(7):806–807.

Consensus Statements

1. Wells AU, Poletti V, Behr J, Cassidy N, Costable U, Cottin V, Hansell DM, Masefield SC, Richeldi L, Ross D, Ancochea J, Antoniou KM, Bajwah S, Bouros D, Brown KK, Collard HR, Corte TJ, Crestani B, Dai H, Drent M, Egan JJ, Fell CD, Fischer A, Flaherty KR, Grutters JC, Hirani N, Inoue Y, Maher TM, Muller-Quernheim J, **Nathan SD**,

Noble PW, Powell P, Robalo-Cordeiro C, Ryerson CJ, Ryu JH, Saltini C, Selman M, Sverzellati N, Taniguchi H, Undurraga A, Valeyre D, Vancheri C, Wuyts W, Xaubet A. Diagnosis and management of idiopathic pulmonary fibrosis - a combined physician and patient European Respiratory Society and European Lung Foundation consensus statement. Accepted Eur Res J May 14th, 2018

2. **Nathan SD**, Barbera JA, Gaine SP, Harari S, Martinez FJ, Olschewski H, Olsson KM, Peacock AJ, Pepke-Zaba J, Provencher S, Weissmann N, Seeger W. Pulmonary Hypertension in Chronic Lung Disease and Hypoxia. Accepted to ERJ 10/11/2018



Case Reports

1. Jose A, Franco-Palacios D, **King CS**, Gomberg-Maitland M. A 70 year old woman presenting with diarrhea and in-hospital cardiac arrest. Chest 2018. 153(1): e5-e8.
2. **King C, Clement S, Katugaha S, Brown AW**. Fungal Thyroiditis in a lung transplant recipient. BMJ Case Reports 2018;doi:10.1136/bcr-2018-227033

Abstracts/Presentations

International Society for Heart and Lung Transplantation, April

Nice France 2018

1. Shah P, Rohly M, Joshi A, Timofte I, **Brown AW**, Orens J, Iacono A, **Nathan SD**, Avery R, Agbor-Enoh S, Valentine H. Donor Derived Cell Free DNA is elevated with pathogens that are risk factors for Chronic Lung Allograft Dysfunction.
2. Agbor-Enoh S, Jackson AM, Berry G, **Cochrane AB**, Tunc I, Jang M, Bhatti K, Marishta A, Gorham S, Yang Y, Fideli U, Zhu J, Pirooznia M, Grimm D, Luikart H, Shah P, Timofte I, Iacono A, Cao Z, **Brown AW**, Orens J, Marboe C, **Nathan SD**, Khush K, Valentine H. Antibody-mediated rejection: should we wait for clinical diagnosis?
3. **Brown AW**, Agbor-Enoh S, Shah P, Timofte I, Orens J, Iacono A, Lemme M, **Barnett S, Soares F, Nathan SD, Ahmad K**, Valentine H. Role of dd-cfDNA in Predicting Early Post-Operative Course in Lung Transplant Recipients.
4. Agbor-Enoh S, **Cochrane AB**, Jackson AM, I. Tunc, P. Shah, Z. Cao, **Brown AW**, Timofte I, Marishta A, Jang M, Gorham S, Yang Y, Fideli U, Iacono A, **Nathan SD**, Orens J, Valentine H. Is the New ISHLT Criteria for Pulmonary Antibody-Mediated Rejection also a Severity Indicator?
5. Agbor-Enoh S, Tunc I, Gorham S, Jang M, Fideli U, Marishta A, Zhu J, Pirooznia M, Yang Y, Davis A, Grimm D, Cao Z, Luikart H, Shah P, Timofte I, **Brown AW**, Iacono A, **Nathan SD**, Orens J, Khush K, Valentine H. Clinically-unrecognized allograft injury is common after lung transplantation.
6. **Ahmad K, Brown AW**, Shah P, Timofte I, Orens J, Iacono A, Lemme M, **Aryal S**, Cochrane A, **Nathan SD**, Agbor-Enoh S, Valentine H. Role of dd-cfDNA in Predicting Early Hospital Readmission in Lung Transplant Recipients.
7. Jackson AM, **Cochrane AB, Nathan SD, Brown AW**, Shah P, Orens J, Timofte I, Pham SM, Gorham SS, Bhatti K, Marishta A, Jang M, Yang Y, Fideli U, Tunc I, Zhu J, Iacono I, Agbor-Enoh S, Valentine H. Elevated Donor-Derived Cell-Free DNA (ddcfDNA) as an early risk factor for the development and persistence of de novo donor specific HLA antibody.

8. **Bogar L, Chun J, Fregoso M, Cantwell L, Shah P.** Negative Pressure Wound Therapy Applied to Groin Cannulation Incisions Decrease the Incidence and Severity of Seroma Formation.
9. **Nunes FS, King CS, Nathan SD, Fregoso M, Ahmad K, Aryal S, Brown AW, Barnett SD, Shlobin OA, Vester A.** High Body Mass Index is a Risk Factor for Acute Cellular Rejection in Lung Transplant Recipients.
10. **Bowen MA, Cochrane AB, Albergott-Barnes L, Brown AW.** Rapid High Dose Vaccine Series: Increasing Immunity to Hepatitis B in Lung Transplant Candidates.
11. Jose A, **King C, Welt E, Shlobin OA, Brown AW, Aryal S, Weir N, Nathan SD.** Abnormal Invasive Pulmonary Hemodynamics Predict Outcomes in Exercising Patients.
12. Jarrett H, Jonnalagadda AK, Liu SD, Bagnola AJ, Lewis D, Shlobin OA, Barnett CF. Rapid Transition from Parenteral to Oral Treprostinil in PH is Feasible and Safe: A Retrospective Cohort Study.

American Thoracic Society May, San Diego, CA

1. Nett RJ, Cummings KJ, **Cannon B, Cox-Ganser J, Nathan SD.** Dental Personnel Treated for Idiopathic Pulmonary Fibrosis at a Specialty Clinic.
2. Barochia AV, Kaler M, Gordon EM, Figueroa D, **Weir NA, Lemma WoldeHanna M, Sampson M, Remaley AT, Barnett SD, Grant G, Nathan SD, Levine SJ.** Serum Lipids and Lipoproteins Quantified by NMR Spectroscopy are Correlated with FVC, 6MWD and GAP index in Idiopathic Pulmonary Fibrosis.
3. Waxman AB, Tapson VF, Smith PM, Deng C, **Nathan SD.** A Multicenter, Randomized, Double-Blinded, Placebo-Controlled Trial to Evaluate the Safety and Efficacy of Inhaled Treprostinil in Subjects with Pulmonary Hypertension due to Parenchymal Lung Disease (Study RIN-PH-201).
4. Behr J, **Nathan SD, Harari S, Wuyts W, Kirchgaessler K, Bengus M, Gilberg F, Wells A.** Baseline Characteristics From a Pre-specified Interim Analysis of a Phase IIb, Randomized, Double-Blind, Placebo-Controlled Trial of Sildenafil Added to Pirfenidone in Patients With Advanced Idiopathic Pulmonary Fibrosis and Pulmonary Hypertension.
5. **Poreddy M, Nunes FS, Scully A, Nathan SD, Brown AW, Ahmad K, King CS, Shlobin OA, Aryal S, Weir N.** Gender and BMI Predict Antifibrotic Tolerance in IPF.
6. **Chun J, King C, Fregoso M, Marinak L, Shlobin O, Aryal S, Nathan SD, Brown AW.** Incidence and Impact of Gallbladder Disease after Lung Transplantation.
7. Jose A, **King C, Welt E, Shlobin OA, Brown AW, Aryal S, Weir N, Nathan SD.** Abnormal Exercise Pulmonary Hemodynamics Predict Outcomes in Patients with Lung Disease.
8. Biru N, **King CS, Shlobin OA, Aryal S, Nathan SD, Marinak L, Woods C, Brown AW, King CS.** Rare case of rapidly progressive interstitial lung disease following adult tetanus, diphtheria, and pertussis (Tdap) vaccination.
9. Mabe D, **Shlobin OA, Bogar L, Nathan SD, Brown AW, Aryal S, Murphy C, King C.** ECMO as a Bridge to Initial Medical Therapy in a Patient with Decompensated Pulmonary Arterial Hypertension. Submitted ATS 2018 OS to FU
10. **Nunes FS, Vester A, Brown AW, King CS, Ahmad K, Fregoso M, Aryal S, Nathan SD, Barnett SD, Shlobin OA.** Body Mass Index at Listing May Impact Survival After Lung Transplantation.
11. **Ewarien B, Brown AW, Libre M, Cochrane A, Marinak L, Ghandi B, Shlobin OA, Nathan SD, King CS.** Paravertebral Nerve Block For Pain Control Following Lung Transplantation.
12. Kouranos V, **Shlobin OA, Nathan S, Wells A, Baughman RP.** Factors associated with reduced survival in sarcoidosis associated pulmonary hypertension: results of the registry for sarcoidosis associated pulmonary hypertension (ReSAPH).
13. **Cheng JM, Soares F, Cannon B, Brown AW, Nathan SD.** The White Blood Cell Count as a Prognostic Indicator in Idiopathic Pulmonary Fibrosis.
14. Gersten RA, **Cannon B, Bowen M, Davies E, Brown AW.** Evaluation of Depression and Anxiety and their Influence on Outcomes in Adult Patients with Cystic Fibrosis.

World Symposium on Pulmonary Hypertension Nice, France Feb 2018

Behr J, **Nathan SD**, Harari S, Wuyts W, Kirchgaessler K, Bengus M, Gilberg F, Wells A. Sildenafil added to pirfenidone in patients with advanced idiopathic pulmonary fibrosis (IPF) and pulmonary hypertension (PH): a Phase IIb, randomized, double-blind, placebo-controlled study. Presented at World PH meeting Nice, France 2018

American Society for Echocardiography 2018

Benedict C, **Shlobin O**, Shiao NJ, Welt E, Vakilzadeh M, **Nathan SD**, **Zhao Q**. Characterization of Left Ventricular Diastolic Function Difference in Patients with Exercise-induced Pulmonary Hypertension due to Heart Failure with Preserved Ejection Fraction vs Pulmonary Arterial Hypertension.

European Respiratory Society 2018

K.R. Flaherty, J.A. de Andrade, L.H. Lancaster, K.O. Lindell, **S.D. Nathan**, G. Raghu, C. Spino, J.L. Stauffer, P.J. Wolters, G.P. Cosgrove Baseline Characteristics of the Initial 1461 Participants in the Pulmonary Fibrosis Foundation. To be submitted to ERS 2018

Chest San Antonio, TX October 2018

1. **Nathan SD**, Costabel U, Albera C, Behr J, Wuyts WA, Kirchgaessler K, Stauffer JL, Morgenthien E, Yang M, Limb SL, Noble PW. Effect of Pirfenidone on Exercise Capacity and Dyspnea in Patients with Idiopathic Pulmonary Fibrosis and More Advanced Lung Function Impairment. Ankush Ratwani, MD;
2. **Kareem Ahmad, MD; Christopher S. King, MD; Oksana Shlobin, MD; Nargues Weir, MD; Shambhu Aryal, MD; Steven D. Nathan, MD; A. Whitney Brown, MD**. Connective Tissue Disease associated Interstitial Lung Disease and Outcomes after Hospitalization: a Cohort Study. Podium Presentation
3. **Ahmad K, Shlobin O, Nathan S, King CS, Aryal S, Brown AW**. Rising Incidence of Pulmonary Embolism Post-Lung Transplantation: A Single Center Experience. Submitted to Chest 2018.

North America Cystic Fibrosis Conference 2018

Bowen M, Duong Q, Russell C, Lamberti J, Connors G, Brown AW. Development and implementation of a CF specific outpatient pulmonary rehabilitation program. Podium presentation and poster

America Society for Matrix Biology 2018

Bui S, Young O, **Nathan SD**, Paige M., Grant GM. Novel Tacrolimus (FK506) Analogue Inhibits FKBP10:Lysyl-Hydroxylase-2 (LH2) Collagen Processing in Idiopathic Pulmonary Fibrosis (IPF) Fibroblasts. American Society for Matrix Biology, October 14-17, 2018.