

## CURRICULUM VITAE

### Cecelia C. Yates, PhD

Associate Professor

Department of Health Promotion and Development

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### EDUCATION AND TRAINING

- 2001            **B.S. Biology, Minor in Chemistry**, Tuskegee University, Tuskegee, Alabama
- 2009            **PhD Pathology/Integrative Bioscience**, University of Pittsburgh School of Medicine, Pittsburgh Pennsylvania/Tuskegee University, Tuskegee, Alabama
- 2009 – 2012    **Post-Doctoral Fellow**, Department of Pathology [Fellowship Director: Alan Wells, MD, DMSc], University of Pittsburgh School of Medicine, Pittsburgh, Pennsylvania

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### APPOINTMENTS AND POSITIONS

#### Academic

- 2012 – 2018    Assistant Professor, Department of Health Promotion and Development, School of Nursing, University of Pittsburgh, Pittsburgh, Pennsylvania
- 2014 – 2018    Assistant Professor, Department of Pathology, School of Medicine University of Pittsburgh, Pittsburgh, Pennsylvania
- 2015 – 2018    Assistant Professor, McGowan Institute for Regenerative Medicine, University of Pittsburgh, Pittsburgh, Pennsylvania
- 2018 – Present    **Associate Professor (Tenured)**, Department of Health Promotion and Development, School of Nursing, University of Pittsburgh, Pittsburgh, Pennsylvania
- 2018 – Present    **Associate Professor**, Department of Pathology, School of Medicine, University of Pittsburgh, Pittsburgh, Pennsylvania (**secondary appointment**)
- 2018 – Present    **Associate Professor**, McGowan Institute for Regenerative Medicine, University of Pittsburgh, Pittsburgh, Pennsylvania (**secondary appointment**)

#### Non-Academic

- 2001 – 2004    Sentient Foods Colors and Technology Analytical Chemist, St. Louis, Missouri
- 1997 – 1998    Centers for Disease Control Intern, Atlanta, Georgia

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## CERTIFICATION AND ADVANCED TRAINING

- 2010 The Business of Innovation Commercialization, Academic Entrepreneurship, Katz Graduate School of Business, University of Pittsburgh, Pittsburgh, Pennsylvania
- 2012 American Association of Immunologists, Immunology Introduction Course, University of Pittsburgh, Pittsburgh, Pennsylvania
- 2014 American Association of Immunologists, Immunology Advance Course, University of Pittsburgh, Pittsburgh, Pennsylvania

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## EDITORIAL BOARDS AND STUDY SECTIONS

- 2014 – 2017 **Member:** The American Journal of Pathology – Elsevier-Journals Strategy Committee (This committee advises the editors and publishers of the journal.)
- 2016 – Present **Section Editor:** Current Pathobiology Reports – Wound Healing Section
- 2016 – Present **External Grant Reviewer:** Department of Defense
- 2017 – 2019 **External Reviewer:** National Institute of Health – Special Emphasis Panel
- 2016 – Present **Editorial Board Member:** The American Journal of Pathology
- 2020 – Present **Theme Section Editor:** Frontiers in Physiology



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## ADVISORY BOARDS

- 2014 – 2018 American Society for Investigative Pathology (ASIP) grant application (**R13 Awarded 2015, 2016, 2017, 2018**)
- 2016 – Present Advisory Board and Task Force for Strategic Planning, The American Journal of Pathology and The Journal of Molecular Diagnostics

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## ENTREPRENEURSHIP AND CONSULTATIONSHIP

- 2012 – Present **Consultant:** Wright Therapy – pressure ulcers gradient technology
- 2012 – Present **Consultant:** Federation of American Societies for Experimental Biology – Minority Access to Research Careers (FASEB-MARC)
- 2015 – Present **Co-founder and Scientific Advisor Ocugenix LLC:** Developmental stage therapeutics company targeting macular degeneration.
- 2015 – Present **Co-founder Curostem™:** Cellular bio-band aid therapy for treatment of chronic wounds. 
- 2018 – Present **Founder FibroKine™ LLC:** Pittsburgh based start-up for targeted peptide treatment for Fibrosing Diseases. 

## HONORS

- 2006 Wound Healing Society Young Investigator Award Finalist, Scottsdale, Arizona
- 2006 Graduate Presentation (First Prize), Department of Pathology, University of Pennsylvania, Philadelphia, Pennsylvania
- 2007 European Tissue Repair Society Young Investigator Award, South Hampton, United Kingdom
- 2008 FASEB-MARC Minority Trainee Travel Award, San Diego, California
- 2008 ASIP's 2008 Experimental Pathologist-in-Graduate Training Award, San Diego, California
- 2008 ASIP Education Fund Scholar Award at the XXIX Congress of the Italian Society of Pathology, Cosenza, Italy
- 2009 ASIP Educational Fund Scholar, New Orleans, Louisiana
- 2010 Post-doctoral Award (First Prize), Department of Pathology, University of Pittsburgh, Pittsburgh, Pennsylvania
- 2011 ASIP 2011 Excellence in Science Award, Washington, District of Columbia
- 2013 Immunohistochemistry and Microscopy Course (IHCM) Faculty Travel Award, Martha's Vineyard, Massachusetts
- 2013 AAI 2013 Annual Meeting Presentation Award, Honolulu, Hawaii
- 2013 Clinical Translational Science Institute Career Education and Enhancement for Health Care Research Diversity Scholar, University of Pittsburgh, Pittsburgh, Pennsylvania
- 2014 Keystone Symposia Early Career Investigator Award (ECITA), Santa Fe, New Mexico
- 2015 ASIP Junior Faculty Award, American Society for Investigative Pathology, Baltimore, Maryland
- 2016 University of Pittsburgh Innovator Awardee, University of Pittsburgh, Pittsburgh, Pennsylvania
- 2017 University of Pittsburgh Innovator Awardee, University of Pittsburgh, Pittsburgh, Pennsylvania
- 2018 University of Pittsburgh Innovator Awardee, University of Pittsburgh, Pittsburgh, Pennsylvania
- 2020 Institute for Clinical Research Education Distinguished Alumnus Award, University of Pittsburgh, Pittsburgh, Pennsylvania

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## PUBLICATIONS

### Refereed Articles (All data-based)

\*Corresponding Author

1. Bodnar R.J., **Yates C.C.**, Wells A. IP-10 blocks VEGF-induced endothelial cell motility and tube formation via inhibition of calpain. *Circulation Research*. 2006 Mar 17; 98(5):617-25. PMID: 16484616

2. **Yates C.C.**, Whaley D., Kulasekeran P., Hancock W.W., Lu B., Bodnar R.J, Newsome J., Hebda P.A., Wells A. Delayed and deficient dermal maturation in mice lacking the CXCR3 ELR-negative CXC chemokine receptor. *American Journal of Pathology*. 2007 Aug; 171(2):484-95. PMID: 17600132
3. **Yates C.C.**, Whaley D., Babu R., Zhang J., Beckman E., Pasculle W.A., Wells A. Multifunctional polymer based gel accelerates wound healing in full thickness bacteria-contaminated mouse models. *Biomaterials*. 2007 Sep; 28(27):3977-86. PMID: 17561250
4. **Yates C.C.**, Whaley D., Yen A.Y., Kulasekeran P., Hebda P. A., Wells A. ELR-negative CXC chemokine CXCL11 (IP-9/I-TAC) facilitates dermal and epidermal maturation during wound repair. *American Journal of Pathology*. 2008 Sep; 173(3):643-52. PMID: 18669615
5. **Yates C.C.**, Whaley D., Hooda S., Hebda P.A., Bodnar R., Wells A. CXCR3<sup>-/-</sup> Mice display a dysfunction in basement membrane remodeling and delay in re-epithelialization during wound healing. *Wound Repair Regeneration*. 2009 Jan-Feb; 17(1):34-41. PMID: 19152649
6. Bodnar R.J., **Yates C.C.**, Rodgers M.E., Du X., Wells A. ELR-negative chemokine IP-10/CXCL10 induces dissociation of newly-formed vessels secondary to calpain cleavage of  $\beta$ 3 integrin. *Journal of Cell Science*. 2009 Jun 15; 122(Pt 12):2064-77. PMID: 19470579
7. **Yates C.C.**, Krishna P., Whaley D., Bodnar R., Wells A. Lack of CXC chemokine receptor 3 signaling leads to hypertrophic and hypercellular scarring. *American Journal Pathology*. 2010 Apr; 176(4):1743-55. PMID: 20203286
8. **Yates C.C.**, Whaley D.L., Wells A. Transplanted fibroblasts prevent dysfunctional repair in a murine CXCR3- deficient scarring model. *Cell Transplantation*. 2012 Jan; (epub). PMID: 22236446
9. \***Yates C.C.**, Rogers M., Wells A., Jaynes J., Bodnar R.J., Turner T. IP-10 fragment is the functional motif that blocks endothelial cell motility and vessel formation. *PLoS One*. 2012 Jul 16; 7(7):e40812. PMID: 22815829
10. Rodrigues M., **Yates C.C.**, Griffin L., Wells A. The matrikine tenascin-C protects multipotential stromal cells/mesenchymal stem cells from death cytokines such as FasL. *Tissue Engineering*. 2013 Sep; 19(17-18):1972-1983. PMID: 23541003
11. Xu L., **Yates C.C.**, Lockyer P., Xie L., Bevilacqua A., He J., Lander C., Patterson C., Willis M.S. MMI-0100 inhibits cardiac fibrosis in myocardial infarction by direct actions on cardiomyocytes and fibroblasts via MK2 inhibition. *Journal of Molecular Cellular Cardiology*. 2014 Dec; 77:86-101. PMID: 25257914
12. Quintana M.T., He J., Sullivan J., Grevengoed T., Schisler J., Han Y., Hill J.A., **Yates C.C.**, Stansfield W.E., Mapanga R.F., Essop M.F., Muehlbauer M.J., Newgard C.B., Bain J.R., Willis M.S. Muscle ring finger-3 protects against diabetic cardiomyopathy induced by a high fat diet. *BMC Endocrine Disorders*. 2015 Jul 28; 15:36. PMID: 26215257

13. He J., Quintana M.T., Sullivan J., L. Parry T., J. Grevengoed T., Schisler J.C., Hill J.A., **Yates C.C.**, Mapanga R.F., Essop M.F., Stansfield W.E., Bain J.R., Newgard C.B., Muehlbauer M.J., Han Y., Clarke B.A., Willis M.S. MuRF2 regulates PPAR $\gamma$ 1 activity to protect against diabetic cardiomyopathy and enhance weight gain induced by a high fat diet. *Cardiovascular Diabetology*. 2015 Aug 5; 14:97. PMID: 26242235
14. He J., Quintana M.T., Sullivan J., L. Parry T., J. Grevengoed T., Schisler J.C., Hill J.A., **Yates C.C.**, Mapanga R.F., Essop M.F., Stansfield W.E., Bain J.R., Newgard C.B., Muehlbauer M.J., Han Y., Clarke B.A., Willis M.S. Cardiomyocyte-specific human Bag3 P209L expression induces mitochondrial fragmentation, BAG3 haploinsufficiency, and activates p38 signaling. *Am J Pathol*. 2016 Aug; 186(8):1989-2007. PMID: 27321750
15. Nuschke A., Rodrigues M., Rivera J., **Yates C.C.**, Whaley D., Stolz D., Griffith L., Wells A. EGF tethered to  $\beta$ -tricalcium phosphate bone scaffolds via a high affinity binding peptide enhances survival of human mesenchymal stem cells/multipotent stromal cells (MSC) in animal models. *Stem Cells Translational Medicine*. 2016 Nov; 5(11):1580-86. PMID: 27400798
16. \***Yates C.C.**, Nuschke A., Rodrigues M., Whaley D., Dechant J.J., Taylor D.P., Wells A. Mesenchymal stem cells survival and healing capacity improved by polymeric wound gel with matrikine. *Cell Transplant*. 2017 Jan 24; 26(1):103-13. PMID: 27452449
17. Hachim D., LoPresti S.T., **Yates C.C.**, Brown B.N. Shifts in macrophage phenotype at the biomaterial interface via IL-4 eluting coatings are associated with improved implant integration. *Biomaterials*. 2017 Jan; 112:95-107. PMID: 27760399
18. Satish L., Gallo P.H, Sandra Johnson S., **Yates C.C.**, Kathju S. Local application of probiotic bacteria mitigates scar formation after burn injury and infection. *Surgical Infections* *Surgical Infections*. 2017 Feb 1; 18(2):119-27. PMID: 27788042
19. \***Yates C.C.**, Nuschke A., Rodrigues M., Johnson Whaley D., Wells A. Multipotent stromal cells/mesenchymal stem cells and fibroblasts combine to minimize skin hypertrophic scarring. *Stem Cell Research & Therapy*. 2017 Sep 5; 8(1):193. PMID: 28874184
20. Mahoney C.M., Imbarlina C., **Yates C.C.**, Marra K.G. Current therapeutic strategies for adipose tissue defects/repair using engineered biomaterials and biomolecule formulations. *Frontiers in Pharmacology*. 2018 May 17; 9:507. PMID: 29867506
21. Johnson Z.I., Jones J.D., Mukherjee A., Ren D., Feghali-Bostwick C., Conley Y.P., \***Yates C.C.** Novel classification for global gene signature model for predicting severity of systemic sclerosis. *PLoS One*. 2018 Jun 20; 13(6):e0199314. PMID: 29924864
22. Mota R., Parry T.L., **Yates C.C.**, Qiang Z., Eaton S.C., Mwiza J.M., Tulasi D., Schisler J.C., Patterson C., Zaglia T., Sandri M., Willis M.S. Increasing cardiomyocyte Atrogin-1 reduces aging-associated fibrosis and regulates remodeling in vivo. *The American Journal of Pathology*. 2018 Jul; 188(7):1676-92. PMID: 29758183

23. Haloul M., Oliveira E.R.A, Kader M., Wells J.Z., Tominello T.R., El Andaloussi A., **Yates C.C.**, Ismail N. mTORC1-mediated polarization of M1 macrophages and their accumulation in the liver correlate with immunopathology in fatal ehrlichiosis. *Scientific Reports*. 2019 Oct; 9(1):14050. PMID: 31575880.

### Articles Under Review

1. Julian D.R., Johnson Z.I., LoPresti S.T., Buechel H.M., Brown B.N., **\*Yates C.C.** Macrophage specific phenotypes induced fibroblast to myofibroblast phenoconversion through TGF $\beta$ /TGF $\beta$ R-independent CXC-type chemokine mediated signaling. *Advances In Wound Care*.

2. Johnson Z.I., Buechel H.M., Julian D.R., LoPresti S.T., Lantonio B.L, Ismail N., Brown B.N., **\*Yates C.C.** IL-4 activated macrophages induce an M1 macrophage-like inflammatory profile in fibroblasts. *Journal of Investigation – Insights*.

3. LoPresti S.T., Johnson Z.I., Lantonio B.L., **\*Yates C.C.**, Brown B.N. The effect of fibroblast signaling on macrophage polarization. *Journal of Investigation – Insights*.

4. Swogger J., Conner I.P., Rosano M., Link M.C., Happ C., Wells A., Schuman J.S., **\*Yates C.C.** Injected versus sponge-applied mitomycin-C (MMC) during modified trabeculectomy in New Zealand white rabbit model. *Translational Vision Science and Technology*.

5. Swogger J., Happ C., Conner I.P., Dong Z.M., Davis R., Link M.C., Wells A., Schuman J.S., **\*Yates C.C.** A novel combination therapy reduces subconjunctival fibrosis after glaucoma filtration surgery in the rabbit model. *Clinical and Experimental Ophthalmology*.

6. Long D., Johnson Z.I., Buechel H.M., Morton L., **\*Yates C.C.**, Wang Y. Clinical relevance of fully mature streptozotocin-induced diabetic swine as a model of chronic wound healing. *Advances in Wound Care*.

### Books Edited

1. *Fibrosis in Disease – An Organ-Based Guide to Disease Pathophysiology and Therapeutic Considerations*. Edited by Willis M.S., **Yates C.C.**, Schisler J.C. Springer Nature; 2018.

### Book Chapter

1. Z.I Johnson, C. Mahoney, J. Heo, E. Frankel, D.R Julian, **C.C Yates**: Chapter 1: The Role of Chemokines in Fibrotic Dermal Remodeling an Wound Healing. In: Willis, Yates, Schisler, eds. *Fibrosis in Disease – An Organ-Based Guide to Disease Pathophysiology and Therapeutic Considerations*. Springer Nature.

### Reviews, Invited Published Papers, Proceedings

1. **Yates C.C.**, Bodnar R.J., Wells A. Matrix control of scarring. *Cellular and Molecular Life Sciences*. 2011 Jun; 68(11):1871-81. PMID:21390544

2. **\*Yates C.C.**, Hebda P. A., Wells A. Skin wound healing and scarring: fetal wounds and regenerative restitution. *Birth Defects Research Part C: Embryo Today: Reviews*. 2013 Dec; 96(4):325-33. PMID:24203921
3. Wells A, Nuschke A, **\*Yates C.C.** Skin tissue repair: Matrix microenvironmental influences. *Matrix Biology*. 2016 Jan; 49:25-36. PMID: 26278492
4. Bodnar R.J., Satish L., **Yates C.C.**, Wells A. Pericytes: A newly recognized player in wound healing. *Wound Repair and Regeneration*. 2016 Mar; 24(2):204-14. PMID: 26969517
5. Johnson Z.I., Z. Guangyi Z., Brown B.N., Ismail N., **\*Yates C.C.** Gene expression profiles of heterogenous fibrotic disease: focus on cell-matrix interaction. *American Journal of Pathology*. (Under Review)
6. Buechel H.M., Julian D.R., **\*Yates C.C.** Targeting angiogenesis: a therapeutic approach using chemokine based synthetic derived peptides. *Current Pathobiology Reports*. (Under Review)
7. Julian D.R., Ismail N., Brown B.N., **\*Yates C.C.** Extracellular matrix influence on heterocellular macrophage-fibroblast crosstalk-mediated phenoconversion in fibrosis. *Advances in Wound Care*. (Under Review)

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## PATENTS AND TRADEMARKS

1. A. Wells, **C.C. Yates**, D. Taylor (2013) Cell-Based Compositions, Cell-Based Bandage Devices and Systems and Methods of Treatment Therewith. United States Application #14/772,501.
  2. **C.C. Yates**, A. Wells, T. Turner, J. Jaynes (Granted: May 27, 2014) Chemokine Derived Peptides and Uses for Chronic Wound and Angiogenesis Inhibition Treatments. United States 8,734,775.
  3. A. Wells, **C.C. Yates**, J.S. Schuman (Granted: November 10, 2015) Activators of CXCR3 for the Treatment of Angiopathies in the Eye. United States 9,180,167.
  4. A. Wells, **C.C. Yates**, J.S. Schuman (Granted: September 27, 2016) Activators of CXCR3 for the Treatment of Angiopathies in the Eye. United States 9,452,200.
  5. **C.C. Yates**, M. Willis, R.J. Bodnar, J. Jaynes (2017) Small Peptide Antagonists Block CXCL10-CXCR3 Signaling and Cardiac Disease Cellular Function. United States Application #62/650,719.
  6. **C.C. Yates**, J. Jaynes, Z.I. Johnson (2017) Use of Chemokine-Mimetic Small Peptides for Personalized Treatment of Tissue Fibrosis. United States Application #62/662,987.
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7. **C.C. Yates**, J. Jaynes, M. Willis, Z.I. Johnson (2017) CXCR3 Agonist Peptides for Treatment of Cardiovascular Disease. United States Application #62/663,003.
8. A. Wells, **C.C. Yates**, J.S. Schuman (Granted: January 23, 2018) Activators of CXCR3 for the Treatment of Angiopathies of the Eye. United States 9,872,889.
9. **C.C. Yates**, Z.I. Johnson (Filed: February 14, 2018) FibroKine™ Peptides – Trademark. Serial number: 87,797,336.
10. **C.C. Yates**, A. Wells, J.S. Schuman, I. Conner (Granted: February 20, 2018) Goblet Cell Replacement Therapy. United States 9,895,419.
11. **C.C. Yates**, J. Jaynes, T. Corcoran, Z.I. Johnson (2018) Inhaled delivery of FibroKine™ Peptides for Targeted Anti-Fibrotic Therapy.
12. **C.C. Yates**, J. Jaynes, M. Willis, R. Bodnar, Z.I. Johnson (2019) Small Peptide Compositions and Uses Thereof. United States Application #16/370,603.
13. **C.C. Yates**, A. Wells, J. Schuman, I. Conner (Granted: February 18, 2020) Goblet Cell Replacement Therapy. United States 10,561,710.

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## RESEARCH

### Ongoing Research Support

**CSL Behring: Global Rare Disease Biotech Company (PI: Yates, UPitt) 01/14/2020 – 01/14/2022**

**Development of Biomimetic Peptides for Treatment of Pulmonary Fibrosis**

The major goal of this award is to develop, test, and confirm efficacy of novel chemokine peptides design by adaptive algorithm for in silico prediction-based functional peptide design inspired by CXCL10. These peptides desirable therapeutic activities inhibit and slow progression of the pathogenesis of pulmonary fibrosis. There is **no overlap in aims with grants listed**.

**NIH-NIAMS (1R01AR068317) (PI: Yates, UPitt) 5/24/16 – 5/30/21**

**Genomics of Variability in Progression and Severity of Fibrosis**

The major goals of this project are to (1) elucidate key molecular pathways driving the progression of fibrosis in scleroderma, (2) identify therapeutic targets to improve outcomes and fibrosis related symptoms, and (3) explore the genes in the chemokine pathway that differentiate severity of fibrosis in systemic sclerosis using prediction modeling and applying high-throughput genomic technologies. There is **no overlap in aims, target molecules, molecular processes, or endpoints with grants listed**.

**NIH-NINR (1R01NR016436) (PI: Wang, Cornell | PI: Yates, UPitt) 7/22/16 – 4/30/21**

**Extended Release of Bioactive Factors Provides for Greater Patient Autonomy**

The overarching goal of this translational study is to advance nursing science and the wound care field by developing effective growth factor application therapies to reduce healthcare cost and



improve both self-management options and the quality of life for patients with chronic wounds. The role of the Yates lab includes experimental involvement of testing the molecular and cellular aspect of the growth factor application therapies. There is **no overlap in aims, target molecules, molecular processes, or endpoints grants listed.**

### **Completed Research Support**

**NIH/NIGMS-FASEB-MARC Postdoctoral and Professional Development & Enrichment Award (PI: Yates, UPitt) 9/1/11-9/1/12**

**Correction of Fibroblast Dysfunctional Repair in Skin Scarring**

**NIGMS (1R01GM63569) (PI: Wells, UPitt) 1/1/15 – 11/30/18**

**Dermal-Epidermal Communication During Wound Healing**

The major goal of this project is to determine the role of key matrix proteins in educating the wound to avoid scarring and promote quiescence after healing. The role of the Yates lab includes experimental involvement of the design and effectuation of *in vivo* and *ex vivo* wounding cellular transplantation studies aimed at deciphering cell-matrix interactions. My role as a co-Investigator is to provide insights into the interpretation of discovered mechanisms as well as mentor graduate students and postdoctoral fellows working on this proposal.

**Center for Research and Evaluation (PI: Yates, UPitt) 6/1/13 – 5/31/15**

**Epigenetic Control of ECM Compliance in Skin Fibrosis**

The major goal of this pilot study is to establish an animal model to assess the genetic and epigenetic changes that occur during various stages of fibrosis.

**Internal-University of Pittsburgh (Nursing Genomic Hub) (PI: Yates, UPitt) 6/1/13 – 5/31/14**

**Gene Expression Switch in Skin Fibrosis**

The major goal of this pilot study is to yield key differentially expressed genes involved in the switch between inflammation and repair that leads to fibrosis.

**Career Education and Enhancement for Health Care Research Diversity Program (PI: Yates, UPitt) 6/1/13 – 5/31/14**

**Chemokine Matrix Regulation of Dermal Fibrosis**

**NIH/LRP (L60 MD009870) (PI: Yates, UPitt) 9/01/15 – 8/31/19**

**African Americans with Systemic Sclerosis Heterogeneity**

The major goal of this project is to yield key differentially expressed genes involved in the switch between inflammation and repair that leads to fibrosis in African Americans.

**Chancellor's Innovation Commercialization Award (PI: Yates, UPitt) 2/01/18 – 6/30/19**

**FibroKine: An Inhalation Anti-fibrotic Therapy for IPF**

The overarching goal of this proposal is to improve the development of anti-fibrotic peptides that have the potential to inhibit idiopathic pulmonary fibrosis through an aerosol inhalation delivery mechanism.

**Center for Medical Innovation Grant (PI: Yates, UPitt) 1/01/18 – 7/31/19**

**FibroKine: CXCL10 Biomimetic Peptides for Treatment of Pulmonary Fibrosis**

The overarching goal of this proposal is development of an inhaled aerosol delivery system that will achieve target organ specificity and efficient FibroKine delivery to the lung. This will specifically aid patients who suffer from pulmonary fibrosis.

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**EDUCATIONAL OR TRAINING GRANTS**

PI: Catherine Bender, University of Pittsburgh, School of Nursing  
NIH/NINR-T32

**Interdisciplinary Training of Nurse Scientists in Cancer Survivorship Research**

**Yates C.C. Role:** 2014-2016: Advisory Committee Faculty Member

PI: Satdarshan Paul Monga and William Wagner, University of Pittsburgh, School of Medicine  
NIH/NIBIB-T32 # 2T32EB001026-11

**McGowan Cellular Approaches to Tissue Engineering and Regeneration (CATER) training grant program.**

**Yates C.C. Role:** 2014-present: Faculty Member

2015-2019- CATER Trainee Admission and Evaluation Committee

PI: Yvette Conley, University of Pittsburgh, School of Nursing  
NIH/NINR-T32

**Targeted Research and Academic Training for Nurses in Genomics**

**Yates C.C. Role:** 2015-2021: Faculty Member

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**MANUSCRIPT REVIEWER**

2009 – Present Ad hoc reviewer, Wound Healing and Regeneration  
2010 – Present Ad hoc reviewer, Acta Dermato-Venereologica  
2011 – Present Ad hoc reviewer, MHR Basic Science of Reproductive Medicine  
2011 – Present Ad hoc reviewer, Journal of Biomedical Materials Research: Part A  
2012 – Present Reviewer, The American Journal of Pathology  
2012 – Present Reviewer, Cell Transplantation  
2012 – Present Reviewer, Stem Cell Research & Therapy  
2013 – Present Reviewer, PLoS One  
2018 – Present Reviewer, Advance Wound Care

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**INVITED PRESENTATIONS (UNPUBLISHED)  
(International; National; Local)**

**Selected Recent Invited International**

1. **Yates C.C.** (2007, September) *CXCR3 Chemokine Receptor Facilitates Dermal and Epidermal Maturation in Aged Associated Wounds*. 17<sup>th</sup> Annual European Tissue Repair Society Meeting, Southampton, United Kingdom

2. **Yates C.C.** (2008, September) *Loss of CXCR3 Chemokine Receptor 3 Signaling Causes a Delay in Epidermal and Dermal Maturation and Leads to Hypertrophic Scarring*. XXIX Congress of the Societa Italiana di Patologia Rende, Cosenza, Italy

3. **Yates C.C.** (2008, September) *CXCR3 Chemokine Receptor Facilitates Dermal and Epidermal Maturation in Aged Associated Wounds*. XXIX Congress of the Societa Italiana di Patologia Rende, Cosenza, Italy

4. **Yates C.C.** (2010, October) XXX Congress of the Societa Italiana di Patologia, University of Salerno, Salerno, Italy

### **Selected Recent Invited National**

1. **Yates C.C.** (2014, May) *Co-Transplantation of Mesenchymal Stem Cell and Fibroblast Reduces Inflammation and Corrects Defective Dermal Remodeling*, American Association of Immunologists Annual Meeting, Honolulu, Hawaii – Selected abstract podium presentation

2. **Yates C.C.** (2014, May) *Chemokine Links between Inflammation and Matrix Remodeling in Skin Fibrosis*, American Society of Investigative Pathology Annual Meeting Cellular Survival: Tumors and Wounds, San Diego, California

3. **Yates C.C.** (2015, March) *Scars and Souvenir: Skin, Lung, and Heart*, American Society of Investigative Pathology Annual Meeting, Boston, Massachusetts

4. **Yates C.C.** (2015, October) *Heat Shock Protein 90 Disrupts TGF-Beta/Smad2/3 Signaling and Modulates ECM Deposition in Dermal Fibroblasts*, Pathobiology for Investigators, Students, Academicians, Baltimore, Maryland

5. **Yates C.C.** (2016, March) *Cell Injury Workshop: Proteotoxicity and Cell Injury*, Experimental Biology, San Diego, California

6. **Yates C.C.** (2016, October) *Microbiome and Disease*, Pathobiology for Investigators, Students, Academicians, Houston, Texas

7. **Yates C.C.** (2016, December) *Next Generation Wound Healing Strategies: “Smart Polymer” Therapy to Improve Tissue Repair*, Pathology-Grand Rounds University of North Carolina at Chapel Hill, Chapel Hill, North Carolina

8. **Yates C.C.** (2017, April) *Microphage-Fibroblast Crosstalk in Shaping Fibrotic Responses*, ASIP 2017 Annual Meeting AT Experimental Biology, Chicago, Illinois

9. **Yates C.C.** (2017, April) *Lesson in Tissue Repair*, Jackson State University – NIH Research Centers in Minority Institutions Program, Jackson, Mississippi

10. **Yates C.C.** (2018, April) *Fibrokinase–Novel Peptide Therapy*, Experimental Biology, San Diego, California

11. **Yates C.C.** (2019, April). *Developing Anti-Fibroic Peptides For Treatment of Lung Fibrosis*, Science Center, University City Science Center, Philadelphia, Pennsylvania

12. **Yates C.C.** (2019, October) *Macrophages and Fibroblasts: Tissue Remodeling Game of Thrones*, University of Pittsburgh Science 2019, Pittsburgh, Pennsylvania

13. **Yates C.C.** (2020, April) *Heterocellular Crosstalk in Skin Fibrosis*, Experimental Biology, San Diego, California

14. **Yates C.C.** (2020, April) *Trailblazers: Repairing the Body's Traveling Bag: My Path from Thin to Thick Skin*, Experimental Biology, San Diego, California

### **Selected Recent Invited Local**

1. **Yates, C.C.** (2013, February) *New Regenerative Strategies for Wound Repair: Retooling the Matrix*, Magee-Women's Research Institute's Work-in-Progress (WIP) Conference & Research Seminar Series, Pittsburgh, Pennsylvania

2. **Yates, C.C.** (2013, September) *Modulation of Glaucoma Filtration Surgery Healing Response Through the CXCR3 Pathway in New Zealand White Rabbit Model*, Ophthalmology Grand Rounds-Lecture Series Papers to Practice, Pittsburgh, Pennsylvania

3. **Yates, C.C.** (2014, April) *Inflammation Induced Responsive Gene Signatures in Scleroderma*, Clinical and Translational Science Institute Scholar Presentation, Pittsburgh, Pennsylvania

4. **Yates, C.C.** (2014, October) *Goblet Cells Replacement Therapy*, Science 2014- Sustain It! (Technology Showcase) University of Pittsburgh, Pittsburgh, Pennsylvania

5. **Yates, C.C.** (2014, November) *From Etiology to Cure: Links between Inflammation and Matrix Remodeling in Skin Fibrosis*, McGowan Institute Wound Healing Research Conference Pittsburgh, Pennsylvania

6. **Yates, C.C.** (2015, November) *Targeting Angiogenesis: A Therapeutic Approach Using a Synthetic Derived Peptide*, Cellular Approaches to Tissue Engineering and Regeneration, Pittsburgh, Pennsylvania

7. **Yates, C.C.** (2016, February) *Genomics of Variability in Progression and Severity of Skin Fibrosis*, Experimental Pathology Seminar Series, Pittsburgh, Pennsylvania

8. **Yates, C.C.** (2016, May) *Next Generation Wound Healing Strategies: "Smart Cell" Polymers to Improve Age and Excessive Scarring*, McGowan Institute Wound Healing Research Conference, Pittsburgh, Pennsylvania

9. **Yates, C.C.** (2016, June) *Scars and Souvenirs: Inflammation and Fibrosis in Skin*, Regenerative Medicine Summer School, Pittsburgh, Pennsylvania

10. **Yates, C.C.** (2017, March) *Matrix Control of Cellular-Transplantation to Improve Scarring Outcomes Affliction*, McGowan Institute 2017 Scientific Retreat, Nemacolin, Pennsylvania

11. **Yates, C.C.** (2017, June) *Scars and Souvenirs: Inflammation and Fibrosis in Skin*, Regenerative Medicine Summer School, Pittsburgh, Pennsylvania

12. **Yates C.C.** (2017, September) *More than Skin Deep: Understanding the Variables in Cutaneous Wound Healing*, Pathobiology for Investigators, Students, Academicians, Pittsburgh Pennsylvania

13. **Yates, C.C.** (2018, June) *Scars and Souvenirs: Inflammation and Fibrosis in Skin*, Regenerative Medicine Summer School, Pittsburgh, Pennsylvania

14. **Yates, C.C.** (2018, November) *Grit: The Power and Passion and Perseverance*, University of Pittsburgh 2018 Women in Medicine & Science Forum, Pittsburgh, Pennsylvania

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## TEACHING

### Primary Teacher

Term / Years	Course Number & Title	No. of Students	Level	Didactic or Clinical
Sp/2013	NUR 0003-1025: Anatomy & Physiology Lab-2 ( <b>Primary Instructor</b> )	24	UG	Clinical Lab
Sp/2013	NUR 0003-1030: Anatomy & Physiology Lab-2 ( <b>Primary Instructor</b> )	37	UG	Clinical Lab
Fa/2013	NUR 2204-1070: Pathophysiology Across Life Span (online) ( <b>Co-instructor</b> )	5	GR	Didactic
Fa/2013	NUR 2204-1070: Pathophysiology Across Life Span (onsite) ( <b>Co-instructor</b> )	97	GR	Didactic
Sp/2014	NUR 0003-1015: Anatomy & Physiology Lab-2 ( <b>Primary Instructor</b> )	31	UG	Clinical Lab
Su/2014	NUR 0002-1100: Anatomy & Physiology Lab-2 ( <b>Primary Instructor</b> )	37	UG	Clinical Lab
Su/2014	NUR 0003-1200: Anatomy & Physiology Lab-2 ( <b>Primary Instructor</b> )	28	UG	Clinical Lab
Su/2014	NUR 3060-1335: Independent Study ( <b>Primary Instructor</b> )	1	GR	Didactic
Fa/2014	NUR 2204-1200: Pathophysiology Across Life Span (online) ( <b>Primary Instructor</b> )	5	GR	Didactic
Fa/2014	NUR 2204-1200: Pathophysiology Across Life Span (onsite) ( <b>Co-instructor</b> )	99	GR	Didactic
Sp/2015	NUR 0003-1015: Anatomy & Physiology Lab-2 ( <b>Primary Instructor</b> )	32	UG	Clinical Lab

Su/2015	NUR 0002-1100: Anatomy & Physiology Lab-2 ( <b>Primary Instructor</b> )	33	UG	Clinical Lab
Su/2015	NUR 0003-1200: Anatomy & Physiology Lab-2 ( <b>Primary Instructor</b> )	27	UG	Clinical Lab
Fa/2015	NUR 0012-1050: Human Anatomy & Physiology-1 ( <b>Primary Instructor</b> )	111	UG	Didactic
Fa/2015	NUR 0012-1070: Human Anatomy & Physiology-1 ( <b>Co-instructor</b> )	175	UG	Didactic
Fa/2015	NUR 0003-1200: Anatomy & Physiology Lab ( <b>Co-coordinator</b> )	225	UG	Clinical Lab
Sp/2016	NUR 0013-1030: Human Anatomy & Physiology ( <b>Primary Instructor, Section 1; Co-instructor, Section 2</b> )	250	UG	Didactic
Sp/2016	NUR 0003-1200: Anatomy & Physiology Lab ( <b>Co-coordinator</b> )	225	UG	Clinical Lab
Su/2016	NUR 2004-1010: Pathophysiology Across Life Span (onsite) ( <b>Co-instructor</b> )	17	GR	Didactic
Fa/2016	NUR 2004-1010: Pathophysiology Across Life Span (online) ( <b>Primary Instructor</b> )	17	GR	Didactic
Sp/2017	NUR 0013-1030: Human Anatomy & Physiology ( <b>Primary Instructor, Section 1; Co-instructor, Section 2</b> )	250	UG	Didactic
Su/2017	NUR 0013-1030: Human Anatomy & Physiology ( <b>Co-instructor, Section 2</b> )	30	UG	Didactic
Fa/2017	NUR 2004-1200: Pathophysiology Across Life Span ( <b>Primary Instructor</b> )	15	GR	Didactic
Sp/2018	NUR 0013-1030: Human Anatomy & Physiology ( <b>Primary Instructor</b> )	148	UG	Didactic
Fa/2018	Foundations of Personalized Health: Translation From Basic Research To Clinical Practice ( <b>Course Director</b> )	1-10	Honors/ UG GR	Didactic
Fa/2019	Foundations of Personalized Health: Translation From Basic Research To Clinical Practice ( <b>Course Director</b> )	1-10	Honors/ UG GR	Didactic

**Lecturer/Guest Lecturer**

<b>Term/ Years</b>	<b>Course Number &amp; Title</b>	<b>No. of Students</b>	<b>Level</b>	<b>Topic of Lecture</b>
Fa/2013	NUR-2204-1200: Pathophysiology Across Life Span (Lecture)	97	GR	Immune Function (4hrs)
Sp/2014	NUR-2204-1200: Pathophysiology Across Life Span (Lecture)	34	GR	Immune Function (4hrs)
Su/2014	NUR-2204-1200: Pathophysiology Across Life Span (Lecture)	20	GR	Immune Function (4hrs)

Fa/2014	NUR-2204-1200: Pathophysiology Across Life Span (Lecture)	95	GR	Immune Function (4hrs)
Fa/2014	MSCMP-3730: Extracellular Matrix in Tissue Biology and Bioengineering	20	GR	Chemokine and Extracellular Matrix (3hrs)
Fa/2014	MSCMP-3740: Stem Cell	20	GR	Skin Stem Cells (2hrs)
Fa/2014	MSCMP: Cellular Approaches to Tissue Engineering and Regeneration (CATER) training program seminar series	17	GR	Fibrosis and Wound Healing (2hrs)
Sp/2015	NUR-2204-1200: Pathophysiology Across Life Span (Lecture)	34	GR	Immune Function (4hrs)
Su/2015	NUR-2204-1200: Pathophysiology Across Life Span (Lecture)	22	GR	Immune Function (4hrs)
Fa/2015	NUR-2204-1200: Pathophysiology Across Life Span (Lecture)	90	GR	Immune Function (4hrs)
Fa/2015	MSCMP-3730: Extracellular Matrix in Tissue Biology and Bioengineering	20	GR	Chemokine and Extracellular Matrix (3hrs)
Fa/2015	MSCMP-3740: Stem Cell	15	GR	Skin Stem Cells (2hrs)
Fa/2015	MSCMP-3730: Extracellular Matrix in Tissue Biology and Bioengineering	15	GR	Fibrosis and Wound Healing (2hrs)
Sp/2016	NUR-2204-1200: Pathophysiology Across Life Span (Lecture)	40	GR	Immune Function (2hrs)
Sp/2016	MSCMP-2730: Molecular Mechanisms of Tissue Growth and Differentiation - SOM	24	GR	Wound Healing (2hrs)
Fa/2016-18	MSCMP-3730: Extracellular Matrix in Tissue Biology and Bioengineering	20	GR	Chemokine and Extracellular Matrix (3hrs)
Sp/2017-2018	MSCMP-2730: Molecular Mechanisms of Tissue Growth and Differentiation - SOM	24	GR	Wound Healing (2hrs)

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## MENTORING

### PhD and Professional Dissertations – Nursing

2013 – 2015      Chair and Research Advisor (School of Nursing) and Cellular Approaches to Tissue Engineering and Regeneration (CATER) Mentor – **Kendra Sayles**,

**BS, RN**, pre-doctorial graduate nursing student with the dissertation title:  
Genomics of Bone Regeneration

**AWARDS:** Corrine M. Barnes Scholarship recipient 2013; E Enid Goldberg Award 2015

2016 – Present Committee Member – **Sarah Belcher, BSN, RN, OCN** at the University of Pittsburgh in the Nursing Department with the dissertation title: Self-Management Mediation Relationships Between Perceived Stress, Psychological Responses and Inflammation in Multiple Cancer Survivors  
**AWARDS:** Robert Wood Johnson Foundation Future of Nursing Scholar

### **PhD and Professional Dissertations – Engineering**

2014 – 2016 Committee Member – **Emily E. Friedrich, MS, PhD** at Carnegie Mellon University in the Biomedical Engineering Department with the dissertation title: Localized Control of Inflammation Vial Hyaluronic Acid-Conjugated Tumor Necrosis Factor-Alpha Antibody Therapeutics

2014 – 2018 Secondary Mentor, Committee Member – **Christopher Mahoney, BS, MS** at the University of Pittsburgh in the Biomedical Engineering Department with the dissertation title: Adipose Matrix Derived Composite Hydrogel for Autologous Fat Graft Retention

**AWARDS:** Cellular Approaches to Tissue Engineering and Regenerative Medicine Trainee Fellowship (2014 – Present); Commonwealth of Pennsylvania Fiscal Year 15 State Grant 2015; Wes Pickard Academic Fellowship Award (honorably declined) 2015; K. Leroy Irvis Fellowship Award (2015 – Present)

2015 – 2018 Committee Member – **Jonquil Mau, BS, MS** at the University of Pittsburgh in the Biomedical Engineering Department with the dissertation title: Regeneration of the Anterior Cruciate Ligament Using Extracellular Matrix Scaffolds and a Resorbable Metallic Implant: Development for Clinical Translation

**AWARDS:** NIH T32 Biomechanics in Regenerative Medicine (BiRM) Training Fellowship Recipient, University of Pittsburgh, Pittsburgh, PA (2015 – 2017); Best Poster Award, International Symposium on Ligaments & Tendons XIV 2015; Erin McGurk Grant, Orthopedic Research Laboratories Alumni Council (ORLAC) – Designed for a female graduate to perform musculoskeletal research during the summer of 2014

2016 – 2018 Committee Member – **Samuel LoPresti** at the University of Pittsburgh in the Bioengineering Department with the dissertation title: Aged Skeletal Muscle ECM Recapitulates Altered Host Response during Muscle Injury

**AWARDS:** Second place in the NSF iCorps First Gear Elevator Pitch 2017

2018 – Present Committee Member – **Martin Haschak** at the University of Pittsburgh in the Bioengineering Department with the dissertation title: Age-Related Compositional and Biomechanical Alterations in the Cardiac Microenvironment Drive Alterations in Cardiac Tissue Resident Macrophage Proliferation, Phenotype, and Functionality which Contribute to the Age-Related Decline in Cardiovascular Function



- AWARDS:** Irvis Fellowship, University of Pittsburgh; CATER T32 Fellowship, University of Pittsburgh
- 2018 – Present Committee Member – **Alexis Nolfi** at the University of Pittsburgh in the Bioengineering Department with the dissertation title: Modulation and Visualization of Cytokine-Eluting Coatings from Polypropylene Mesh to Optimize Downstream Outcomes
- AWARDS:** University of Pittsburgh School of Engineering Bevier Award; August 2016 Issue of American Journal of Obstetrics and Gynecology: Figure from paper was chosen for cover art of the journal; Achievement Rewards for College Scientists (ARCS) Pittsburgh Chapter – Chosen as Scholar 2015; National Science Foundation Graduate Research Fellowship Program – Chosen as Fellow 2015; Cellular Approaches to Tissue Engineering and Regeneration (CATER) pre-doctoral T32 Training Grant – Chosen as Fellow 2018

### **PhD and Professional Dissertations – Pathology**

- 2013 – 2016 Outside Research Advisor – **Austin Nuschke**, at the University of Pittsburgh School of Medicine in the Pathology Department with the dissertation title: Multipotent Stromal cells/Mesenchymal Stem Cells and Fibroblasts Combine to Minimize Skin Hypertrophic Scarring (Primary Advisor – Alan Wells)
- 2014 – 2018 Primary Mentor – **Erica Johnson, BS** medical student at the University of Pittsburgh School of Medicine in the Pathology Department with the dissertation title: The Role of Pericyte Signaling through Chemokine Receptor 3 in the Human Retina
- 2016 – 2019 Outside Research Advisor – **Morgan Preziosi, BS** at the University of Pittsburgh in the Pathology Department with the dissertation title: Wnt Signaling in Liver Regeneration after Partial Hepatectomy (Primary Advisor – Paul Monga)
- 2017 – Present Outside Research Advisor – **Nakisha Rutledge**, at Northwestern University in the Pathology Department with the dissertation title: Characterization of CD99L2 as an Important Regulator of Inflammation (Primary Advisor – William Muller)

### **Post-Doctoral Fellows and Residents**

- 2014 – 2016 Research Advisor – **John Swogger, MD** at the University of Pittsburgh in the Department of Ophthalmology with the research title: Injected versus Sponge-Applied Mitomycin-C (MMC) During Modified Trabeculectomy in New Zealand White Rabbit Model
- 2017 – 2018 Research Advisor – **Zariel I. Johnson** at the University of Pittsburgh in the School of Nursing with the research title: Classification for Global Gene Signature Predicting Severity of Systemic Scleroderma
- 2017 – 2018 Research Advisor – **Guangyi Zhao** at the University of Pittsburgh in the School of Nursing with the research title: M2 Macrophage Phenotype Modifies the Wound Micro-Environment to Improve Aged-Deficient Tissue Repair

**AWARDS:** 2017 Pathobiology for Investigators, Students, and Academicians (PISA) Travel Awardee

2019-2020 Research Advisor – **Heather Buechel** at the University of Pittsburgh in the School of Nursing with the research title: IL-4 Activated Macrophages Induces an M1 Macrophage-Like Inflammatory Profile in Fibroblasts

#### **University of Pittsburgh Masters Research Students**

2014 – present Research Advisor – **Akhil Patel** at the University of Pittsburgh in the School of Nursing, in the Department of Health Promotion and Development with the research title: Fibroblast MSCs Transplantation for Reduction of Scarring

2017 – 2019 Research Advisor – **Michelle Clifton** at the University of Pittsburgh in the School of Nursing, in the Department of Health Promotion and Development with the research title: Classification for Global Gene Signature Predicting Severity of Systemic Scleroderma

#### **University of Pittsburgh Undergraduate Mentoring Activities Nursing Honor Undergraduate Students**

2016 – 2019 Primary Research Advisor and Chair – **Heather Moore** at the University of Pittsburgh in the Undergraduate Nursing Honors College with the scholarly project title: The Microbiota, A Possible Link Between Vitamin D Deficiency and the Development of Type 2 Diabetes  
**AWARDS:** National Society of Collegiate Scholars (NSCS) Nominee; 2016 Gerald R. and Helen Kissell Burns Resource Scholarship Recipient; 2016 Brackenridge Research Fellowship; 2017 Honors College – Health Sciences Summer Research Fellowships (1 of 10 selected University wide); 2017 Summer Research Opportunity in Pathology Program

#### **Nursing Undergraduate Research Students**

2013 – 2014 Research Advisor – **Marisa Febiszewski** at the University of Pittsburgh as an Undergraduate Nursing (URMP) Student

**AWARDS:** CHOP Research Institute Summer Scholars Program (CRISSP)

2013 – 2015 Research Advisor – **Maranda Rosano** at the University of Pittsburgh as an Undergraduate Nursing (URMP) Student with the scholarly project title: Migration Pattern of Fibrotic Fibroblast under Chemokine Stimuli

**AWARDS:** UPMC Summer Student Nurse Fellowship

2015 – 2017 Research Advisor – **Jessica Fisher** at the University of Pittsburgh as an Undergraduate Nursing (URMP) Student with the scholarly project title: Psychosocial Behavioral Effects on Chronic Wounds

2015 – 2017 Research Advisor – **Emma Wolfe** at the University of Pittsburgh as an Undergraduate Nursing (URMP) Student with the scholarly project title: Macrophage Polarization in Aged Wound Healing

2016 – 2019 Research Advisor – **Samantha Schaeffer** at the University of Pittsburgh as an Undergraduate Nursing (URMP) Student with the scholarly project title: CXCR3 Modulation of Aged Fibroblasts and Keratinocytes

2017 – 2019 Research Advisor – **Erin Frankel** at the University of Pittsburgh as an Undergraduate Nursing (URMP) Student

### **Undergraduate Research Students**

- 2012 – 2014 Research Advisor – **Holly Whitelam** an Undergraduate Bioengineering student with the scholarly project title: Polymer Matrix Delivery of MSC in Skin Wounds
- 2013 – 2014 Research Advisor – **Sool Lee** an Undergraduate Biochemistry student with the scholarly project title: Molecular Switch in Fibrosis
- 2013 – 2017 Research Advisor – **Megan Link** an Undergraduate Biological Science student with the scholarly project title: Matrix Profile of MSC under Inflammatory Stimuli  
**AWARDS:** The Samuel D. Colella Award
- 2014 – 2017 Research Advisor – **Rachel Whalen** an Undergraduate Biology student with the scholarly project title: Role of Heat Shock Proteins in Modulating ECM Deposition
- 2015 – 2019 Research Advisor – **Brandon Lantonio** an Undergraduate Neuroscience student with the scholarly project title: Stem Cell and Fibroblast Modulation of Wound Fibrosis  
**AWARDS:** 2017 ASIP Trainee Travel Award to Attend the ASIP Annual Meeting at 2017 Experimental Biology (National Award); 2017 Pathobiology for Investigators, Students, and Academicians (PISA) Travel Awardee (only UG recipient)
- 2016 – 2017 Research Advisor – **Madison Brannon** an Undergraduate Biology student with the scholarly project title: Psychosocial Behavioral Effects on Type 2 Diabetic Wounds
- 2016 – 2018 Research Advisor – **Elizabeth Schmele** an Undergraduate Biology student with the scholarly project title: Psychosocial Behavioral Effects on Chronic Wounds
- 2018 – 2019 Research Advisor – **Dana Julian** an Undergraduate Neuroscience student with the scholarly project title: Fibroblast Phenoconversion

### **National Mentoring**

- 2010 – 2011 **Jainee Lewis** at San Francisco State University, San Francisco, California
- 2010 – 2011 **Venki Ramakrishnan** at the University of Maryland, Baltimore County, Maryland
- 2010 – 2011 **Chelsea Saito-Reis** at Chaminade University, Honolulu, Hawaii
- 2010 – 2011 **Diep Vuong** at Chaminade University, Honolulu, Hawaii
- 2010 – 2011 **Brandon Young** at the University of Maryland, Baltimore County, Maryland
- 2011 – 2013 **Joyce C. Ohiri** at the University of Maryland, Baltimore County, Maryland
- 2011 – 2013 **David Thomas** at Georgia Gwinnett College, Lawrenceville, Georgia
- 2012 – Present **Shantell Phillips** at Texas Southern University, Houston, Texas
- 2012 – Present **Evelyn Reid** at Medgar Evers College-CUNY, Brooklyn, New York
- 2015 – Present **Liliana Espinoza** at St. Mary's University, San Antonio, Texas

### **Faculty Mentoring**

- 2013 – Present **Latha Satish, MSc, MPhil, PhD**, Research Assistant Professor of Plastic Surgery, University of Pittsburgh
- 2014 – Present **Jacqueline Jones, PhD**, Assistant Professor, Department of Biological and Environmental Science, Troy University
- 2015 – Present **Christine A. Feeley, RN, MSN, PhD**, Assistant Professor, Department of Health Promotion and Development, University of Pittsburgh
- 2016 – Present **Jason Dechant, MA, PhD**, Assistant Professor, Department of Health Promotion and Development, University of Pittsburgh
- 2016 – Present **Edward A. Medina, MD, PhD**, Assistant Professor, Division of Hematopathology, Department of Pathology and Laboratory Medicine, UT Health San Antonio
- 2017 – Present **Diane R. Bielenberg**, Assistant Professor, Department of Surgery, Harvard Medical School Vascular Biology Program, Boston Children’s Hospital
- 2017 – Present **Denuja Karunakaran, PhD**, Associate Scientist, Cardiac Function Laboratory, University of Ottawa Heart Institute
- 2018 – Present **Titus A. Reaves, PhD**, Assistant Professor, Department of Regenerative Medicine and Cell Biology, College of Medicine, Medical University of South Carolina
- 2018 – Present **Amin Cheikhi, PhD**, Postdoctoral Student, McGowan Institute for Regenerative Medicine, University of Pittsburgh
- 2019 – Present **Roberto Ivan Mota Alvidrez, M.D., M.S.**, Research Fellow, Center for Translational Neurodegeneration Research, Department of Molecular Genetics, UT Southwestern Medical Center
- 2019 – Present **Tirthadipa Pradhan-Sundd, PhD**, Assistant Professor (Research), Division of Hematology-Oncology, Department of Medicine, University of Pittsburgh

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## SERVICE

### University Committees

- 2013 **Presenter** – Celebrating differences: Issues for minorities in academic medicine, Institute for Clinical Research Education
- 2013 **Panelist** – Managing Your Mentor: Best Practices for Mentees, Office of Academic Career Development University of Pittsburgh Health Sciences
- 2014 **School of Nursing Representative** – Facilitator, Women in Medicine & Science Forum, University of Pittsburgh
- 2014 **Judge** – Health Disparities Poster Competition – School of Health Sciences, University of Pittsburgh
- 2014 **School of Nursing Representative** – Provost's Diversity Task Force Luncheon, University of Pittsburgh
- 2014 **Panelist** – *Science 2014–Sustain It!* Technology Showcase, University of Pittsburgh
- 2015 **School of Nursing Representative** – Mentor, Women in Medicine & Science Forum, University of Pittsburgh
- 2015 **Judge** – Health Disparities Poster Competition – School of Health Sciences, University of Pittsburgh

- 2015 – 2018 **Co-Director** – McGowan Institute Injury, Repair and Regenerative Medicine Seminar Series – Biweekly
- 2016 – Present **Committee Member** – McGowan Institute for Regenerative Medicine – CATER Trainee Admission and Evaluation Committee
- 2018 **Panelist** – National Center for Faculty Development and Diversity, University of Pittsburgh
- 2018 **ICRE Scholar** – Networking for Diversity, University of Pittsburgh
- 2018 – 2020 **Elected Member** – University Senate Bylaws Committee, University of Pittsburgh

### **School Of Nursing Committees**

- 2014 **Member** – School of Nursing PhD Council
- 2014 **Member** – School of Nursing PhD Council Subcommittee – PhD Program Progression and Graduation Committee
- 2014 **Reviewer** – Undergraduate and Graduate Scholarship Essay, School of Nursing, University of Pittsburgh
- 2015 **Committee Member** – Curriculum Refresh Task Force #3
- 2015 – Present **Committee Chair** – School of Nursing PhD Council Subcommittee – PhD Program Progression and Graduation Committee
- 2015 **Reviewer** – Undergraduate and Graduate Scholarship Essay, School of Nursing, University of Pittsburgh
- 2015, 2016 **Gap Analysis Taskforce** – PhD Council Subcommittee
- 2016 **Committee Member** – Kazakhstan School of Nursing Module and Course Development (Human Anatomy & Physiology and Pathophysiology), University of Pittsburgh
- 2016 **Member** – School of Nursing Honors College Committee, University of Pittsburgh
- 2017 **Course Development** – Clinical Research and Diagnostics Honors Course, University of Pittsburgh

### **National Service**

- 2009 – Present **Reviewer and Judge** – Annual Biomedical Research Conference for Minorities (ABRCMS)
- 2009 – 2011 **Co-Editor-in-Chief** – American Society for Investigative Pathology, Trainee Newsletter
- 2009 – 2011 **Member** – R13 Steering Committee
- 2011 – 2015 **Chair** – Cell Injury Special Interest Group, American Society for Investigative Pathology
- 2012 – Present **Faculty Mentor** – Federation of American Societies for Experimental Biology-Minority Access to Research Careers (FASEB-MARC)
- 2012 – 2015 **Member** – ASIP Research and Science Policy Committee
- 2012 – 2015 **Member** – Publications Committee, American Society for Investigative Pathology
- 2013 **Chair (Symposium)** – Experimental Biology Annual Meeting: Regulation of the Extracellular Matrix in the Pathophysiology of Disease

- 2014 **Chair** (Symposium) – Experimental Biology Annual Meeting EB 2014: Cellular Injury: Tumors and Wounds. San Diego CA
- 2013 – Present **Co-Chair and Instructor** – F TROOP: Roadmap to Fellowship Grant Applications, American Society for Investigative Pathology
- 2014 – 2015 **Chair-Elect** – Committee for Career Development and Diversity, American Society for Investigative Pathology
- 2015 – 2016 **Member** – Advisory Board and Task Force for Strategic Planning – AJP and the Journal of Molecular Diagnostics
- 2015 – Present **Member** – Education Committee, American Society for Investigative Pathology
- 2015 – Present **Chair** – Committee for Career Development and Diversity, American Society for Investigative Pathology
- 2015 – Present **Member** – Council, American Society for Investigative Pathology
- 2015 – Present **Co-Chair and Instructor** – F TROOP: Roadmap to Fellowship Grant Applications, American Society for Investigative Pathology
- 2016 – Present **Steering Committee Member** – Pathobiology for Investigators, Students, Academicians Meeting
- 2016 **Chair** – Workshop Career-Choice Opportunities in Science and Networking Efficiently
- 2016 **Member** – Scientific Committee, PISA 2016: Breakthroughs in Biology – From Underlying Pathogenesis to Translational Medicine
- 2017 **Member** – Scientific Committee, PISA 2017: Implications in Development, Regeneration, Injury, Immunity, and Malignancy
- 2018 **Member** – Scientific Committee, PISA 2018: Molecular Mechanisms of Disease: Tissue Homeostasis, Immune Responses, and Cancer
- 2018 **Member** – Scientific Committee, 22<sup>nd</sup> Annual Regenerative Medicine Workshop

### Community Service

- 2007 – Present Wise Scholars Foundation, Tuskegee, Alabama
- 2007 – Present Pittsburgh Youth Development Project, Pittsburgh, Pennsylvania
- 2011 – Present Pittsburgh ALS Foundation, Pittsburgh, Pennsylvania
- 2015 Sunday Service Weekly Lecture/Discussion Forum in the First Unitarian Church of Pittsburgh in Shadyside – Title: Non-healing Wounds
- 2016 Women in Bio-Young Scientist Experimental Day, Carnegie Science Center, Pittsburgh, Pennsylvania
- 2016 Susan G. Komen Breast Cancer Fundraiser and Walk, San Diego, California
- 2016 Elementary Career Day, Bowie, Maryland
- 2017 Science of Silence Day, Pittsburgh, Pennsylvania
- 2018 Women in Bio-Young Scientist Experimental Day, Carnegie Science Center, Pittsburgh, Pennsylvania
- 2018 Big Brothers Big Sisters of Greater Pittsburgh