

Anne H. Pereira, Ph.D.

Dean, Graduate College
Professor and Associate Dean for Research
Department of Pharmaceutical Sciences
College of Pharmacy
University of Oklahoma Health Sciences Center

Contact Information:

E-mail: anne-pereira@ouhsc.edu

Phone: 405-271-6593 ext. 58034

Office: Rm 329 College of Pharmacy Building, 1110 N Stonewall, Oklahoma City, OK 73117

Education:

1975: B.S., Microbiology/Pathology, University of Melbourne, Australia

1976: B.S., Honors, Pathology, University of Melbourne, Australia

1982: Ph.D., Pathology, University of Melbourne, Australia

1982-1984: Post-doc eq, Immunology, Royal Children's Hospital, Australia

Academic Appointments:

1984-1990: Senior Research Associate, Dept. Microbiol & Immunology, Emory Univ., GA

1991-1992: Assistant Professor (RT), Dept. Microbiol & Immunology, Emory University, GA

1992-1997: Assistant Professor, Department of Pathology, OUHSC, OK

1997-2009: Associate Professor with tenure, Dept. Pathology, OUHSC, OK

2009: Professor, Dept. Pathology, OUHSC, OK

2009-present: Professor, Dept. Pharmaceutical Sciences, College of Pharmacy, OUHSC, OK

2009-present: Associate Dean for Research, College of Pharmacy, OUHSC, OK

1999-2009: Adjunct Associate Professor, Depts. of Cell Biology & Surgery, OUHSC, OK

2009-present: Adjunct Professor, Dept. of Cell Biology, OUHSC, OK

2009-present: Adjunct Professor, Dept. of Pathology, OUHSC, OK

2005-present: President and Chief Scientific Officer, Biolytx Pharmaceutical Corp (commercial development of an antibiotic based on CAP37 peptides for the treatment of severe Gram negative infections)

Awards and Honors

1977: B.S., Honors, First Class Honours and First Place

1977-1981: Commonwealth Postgraduate Research Award

1990-1992: American Lung Association Research Award

1994: OUHSC Provost's Research Award for Outstanding Research to a Junior Faculty Member

1998: Established Investigator, National Affiliate, American Heart Association

1999: Fred G. Silva Research Award for excellence in research, OUHSC

1999: Plenary Speaker, 1st Internat'l Symposium on Hemostasis & Thrombosis, Hunan, China

2000: Chair, "Mediators of Inflammation", Experimental Biology, CA

2003: Discussion Leader, "Vascular Wall", Experimental Biology, CA

2006: Co-chair, Minisymposium "Innate and acquired immunity", Experimental Biology, CA

2006: "On the brink award winner", Journal Record Innovator of the Year award

2007: Finalist, Grace & Franklin Bernsen Foundation, Most Promising New Business Award to Biolytx Pharmaceuticals Corp

2008: Chair, Minisymposium "Host pathogen interactions and toll-like receptors" Experimental Biology, CA

2008: Henry Zarrow Presidential Professorship for meeting the highest standards of excellence in scholarship and teaching

2013-2018: Governor Mary Fallin appointed committee member to the Oklahoma Center for the Advancement of Science & Technology (OCAST) Health Research Advisory Committee

2013-2014: American Association of Colleges of Pharmacy (AACP), Academic Research Fellow
2013-2014: Fellow of the American Association for the Advancement of Science (AAAS), honored for distinguished contributions to understanding innate immunity and inflammation and the application of host antimicrobial proteins against infections
2015: Fellow, National Academy of Inventors (NAI), for creating and facilitating outstanding inventions that have made a tangible impact on quality of life, economic development and the welfare of society
2016: OK Bio Researcher Recognition Award, Oklahoma Bio Science Association, honored for advancing scientific knowledge in their area of expertise and promoting continued excellence in research

Other Professional Experiences and Memberships:

1993-1996: American Cancer Society, Scientific Advisory Committee on Immunology (SAC-IM)
1997-present: Department of Veterans Affairs Merit Review System, Ad hoc reviewer
1999: NIH, Brain disorders and Clinical Neuroscience BDCN-2 (02) SEP for Postdoc fellowships
1999: NIH, Bioengineering & Physiology, Special Study Section 8 (Minority Fellowships)
1999-present: Alzheimer's Association, Ad hoc Grant Reviewer
1999-2002: American Heart Association, National Immunology and Microbiology I Study Group
2000-2002: NIH, Brain Disorders and Clinical Neuroscience BDCN-3 Study Section, Ad hoc reviewer
2006-2008: American Society for Investigative Pathology (ASIP) Program Committee member for Experimental Biology
2008: NIH/NEI Anterior Eye Disease Study section, Ad Hoc Reviewer
2008: NIH Brain Disorders and Clinical Neuroscience (ZRG1BDCN-F02) Study section
2009: NIH Anterior Eye Disease Member Conflict (ZRG1-BDCN F02 M)
2010: NIH Anterior Eye Disease (AED) Study Section
2011: US Army Medical Research and Materiel Command (USAMRMC), ad hoc reviewer
2011: Society for Neuroscience, "Department Chair Training to Increase Women in Neuroscience" (IWiN), NY
2011-present: Contributing editor, North American Vascular Biology Organization (NAVBO) Vascular Biology Publications Alert
2012-2015: Society for Leukocyte Biology, Grants and Corporate Relations Committee member
2013-present: American Association of Colleges of Pharmacy (AACP) College of Deans; Task Force on assisting schools of Pharmacy at emerging research institutions
2014: UA Army Clinical and Rehabilitative Medicine Research Program (CRM RP), Hypothesis Development Awards and Translational Research Awards of the Vision Research Program, Study Section Chair
2015: Member, Non traditional therapeutics that limit antibacterial resistance, NIH NIAID ZA11-GM-S2 Study section
2015-2018: Chair, Grants and corporate Relations Committee, Society for Leukocyte Biology (SLB/FASEB)
2017: Member, RFA-Ai-a6-081 Partnerships for the Development of Tools to Advance Therapeutic Discovery for Select Antimicrobial Resistant Gram negative Bacteria (R01), Study section

Research Support:

Current:

Past:

- 2012-2017: NIH/NIAID: "Molecular Basis of Immunity.", Role: Collaborator and Steering Committee Member, Role: Collaborator & Steering committee member Awarded: \$0
- 2013-2018: NIH/NIGMS "Oklahoma Shared Clinical and Translational Resources", Role: Director of Key Component Activity, Clinical and Translational Research Pilot Grants Awarded: \$1,561,770
- 2017-2018: NIH/NIAID R13 AI134601 "50th Annual Meeting of the Society for Leukocyte Biology (SLB), Leukocyte Memory: health and Disease", Role: PI, Awarded: \$13,000
- 2016-2017: Presbyterian Health Foundation. "Novel topical peptide therapeutics for the treatment of wounds infected with antibiotic resistant Gram negative bacteria", Role: PI, Awarded: \$74,686
- 2016-2017: NIH/NIAID R13 AI126741 "49th Annual Meeting of the Society for Leukocyte Biology (SLB) Inflammation, Immunity and Cancer: neutrophils and other leukocytes", Role: PI, Awarded: \$9,000
- 2012-2015: OCAST, "Role of CAP37 in neuroinflammation: Friend or foe?" Role: PI, Awarded: \$135,000
- 2007-2014: NIH/NIAID, "Development of an antimicrobial peptide therapeutic for Pseudomonas infections", Role: PI, Awarded: \$2,466,379

- 2007-2013: NIH/NEI, "CAP37 and Ocular Inflammation", Role: PI, Awarded: \$1,823,925
- 2011-2012: Economic Development Generating Excellence, "New drugs for bad bugs", Role PI, Awarded: \$300,000
- 2008-2011: Oklahoma Center for the Advancement of Science and Technology: Oklahoma Applied Research Support (OARS) Program, "New therapeutics based on a natural antibiotic peptide.", Role: PI, Awarded: \$512,094
- 2005-2008: Alzheimer's Association Investigator Initiated Research Grant, "CAP37, a mediator of neuronal microglial interactions.", Role: PI, Awarded: \$218,184

Selected Publications:

1. Griffith GL, A. Kasus-Jacobi, & H.A. Pereira. Bioactive antimicrobial peptides as therapeutics for corneal wounds and infections. *Advances in Wound Care*: 2017, 6(6) 175-190. doi:org/10.1089/wound.2016.0713 PMID:28616359 PMCID:PMC5467138.
2. Stock, A.J., A. Kasus-Jacobi, J.D. Wren, V.H. Sjoelund, G.D. Prestwich, & H.A. Pereira. The role of neutrophil proteins on the amyloid beta-RAGE axis. *Plos One* 2016, 11(9):e0163330 PMD: 27676391 PMCID: PMC5038949.
3. Makoni M, J. Eckert, H.A. Pereira, V. Nizet & S.M. Lawrence. Alterations in neonatal neutrophil function attributable to increased immature forms *Early Human Development* 2016, 103:1-7 DOI: 10.1016/j.earlhumdev.2016.05.016 PMID 27428466 PMCID: PMC5154866.
4. Casanegra A.I., J.A. Stoner, A.J. Tafur, H.A. Pereira, S.W. Rathbun, & A.W. Gardner. Differences in galectin-3, a biomarker of fibrosis, between participants with peripheral arterial disease and participants with normal ankle-brachial index. *Vascular Medicine* 2016 DOI: 10.1177/1358863x16644059 PMID 27155290.
5. Silasi-Mansat, R, H. Zhu, C. Georgescu, N. Popescu, R.S. Keshari, G. Peer, C. Lupu, F.B. Taylor, H.A. Pereira, G. Kinasewitz, J.D. Lambros, & F. Lupu. Complement inhibition decreases early fibrotic events in the lung of septic baboons. *Journal of Cellular and Molecular Medicine*, 2015 19:2549-2563 DOI: 10.1111/jcmm.12667. PMID 26337158 PMCID: PMC4627561.
6. Brock, A.J., A. Kasus-Jacobi, M. Lerner, S. Logan, A.M. Adesina, & H.A. Pereira. The antimicrobial protein, CAP37, is upregulated in pyramidal neurons during Alzheimer's disease. *Histochem Cell Biology*, 2015 144(4): 293-308 DOI: 10.1007/s00418-015-1347-x PMID 26170148 PMCID: PMC4575391.
7. Lawrence, S.M., J. Eckert, M. Makoni & H.A. Pereira. Is the use of complete blood counts with manual differentials an antiquated method of determining neutrophil composition in newborns? *Annals Clin Lab Sci* 2015 45: 403-413 PMID 26275691 PubMed – in process.
8. Kasus-Jacobi, A, GL Griffith, S. Noor-Mohammadi, S. Logan, H. Hinsley, J. Brevetti, L. Mathias, & H. A. Pereira. A Multifunctional peptide based on the neutrophil immune defense molecule, CAP37, has antibacterial and wound healing properties. *J Leukoc Biol* 2015 97: 341-350 PMID:25412625 PMC: 4304423.
9. Griffith GL, Kasus-Jacobi A, Lerner MR, Pereira HA. Corneal wound healing, a newly identified function of CAP37, is mediated by protein kinase C delta (PKC δ). *Invest Ophthalmol Vis Sci* 2014 55:4896-4895. PMCID:PMC 4126793.
10. Griffith, G.L., R. A. Russell, A. Kasus-Jacobi, E. Thavathiru, M.L. Gonzalez, S. Logan, & H. A. Pereira. CAP37 activation of PKC promotes human corneal epithelial cell chemotaxis. *Invest. Ophthalmol. Vis. Sci.* 2013 54:6712-6723 PMCID: PMC3797592.
11. Pereira, H.A, I. Tsyshevskaya-Hoover, H. Hinsley, S. Logan, M. Nguyen, T-T. Nguyen, J. Pohl, K. Wozniak, P.L. Fidel, Jr. Candidacidal activity of synthetic peptides based on the antibiotic domain of the neutrophil-derived protein, CAP37. *Medical Mycology* 2010 48:263-272. PMCID: PMC2749063.
12. Gordon, Y.J., E.G. Romanowski, K.A. Yates, H. Hinsley & H.A. Pereira. Peptides derived from CAP37, a cationic antimicrobial protein, have direct antiviral activity in vitro against adenovirus and herpes simplex virus-1. *Curr. Eye Res.* 2009 34:241-249. PMCID: PMC2749063.
13. Pereira, H.A. Novel therapies based on cationic antimicrobial peptides. *Current Pharmaceut. Biotechnol.* 2006 7:229-234.
14. Gonzalez, M.L., X. Ruan, P. Kumar, P. Grammas, & H.A. Pereira. Functional modulation of smooth muscle cells by the inflammatory mediator CAP37. *Microvasc. Res.* 2004 67: 168-181.
15. Pereira, H.A., X. Ruan, M.L. Gonzalez, I. Tsyshevskaya-Hoover, & J. Chodosh. Modulation of corneal epithelial cell functions by the neutrophil-derived inflammatory mediator CAP37. *Invest. Ophthalmol. Vis. Sci.* 2004 45:4284-4292.