

## LAWRENCE A POTEPA, PHD

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### CURRENT ACADEMIC POSITIONS

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- June 2017-present    Chair Research and Scholarly Endeavors  
Roosevelt University College of Pharmacy
- Oct 2010-present    Associate Professor of Biochemistry and Immunology  
Roosevelt University College of Pharmacy  
Schaumburg, IL 60173
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### EDUCATION

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- 1977-1979            Rush, Presbyterian St. Luke's Medical Center, Chicago, IL 60612  
Postdoctoral Research Fellow, Field of Immunology  
(Mentor: Dr. Henry Gewurz)
- 1973-1977            Northwestern University Feinberg School of Medicine,  
Chicago, IL 60611  
Doctor of Philosophy, Field of Biochemistry  
(Mentor: Dr. James E. Garvin)
- 1969-1973            Bradley University, Peoria, IL 61625  
Bachelor of Science, Field of Biology  
(Mentor: Dr. Alan G. Galsky)
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### PREVIOUS ACADEMIC AND INDUSTRY POSITIONS

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- 1988 - 2008            Various scientific and corporate including:  
Vice President – Research (1996-2008)  
Chief Scientific Officer (1993-2008)  
Director of Immunobiochemistry and Program Manager  
Immtech Pharmaceuticals, Inc (Previously Immtech International)  
Vernon Hills, IL 60061
- Oct 2006-Mar 2008    Consultant – Angiogen, LLC  
(a Biotechnology Co. developing anti-angiogenesis therapies)  
Chicago, IL 60602 and Charlette, NC
- Jine-1998-July 2002    Scientific Founder, Vice President, Chief Scientific Officer  
Corporate Director  
NextEra Therapeutics, Inc  
Vernon Hills, IL and Columbus, OH

Mar 1998-Dec 1999 Consultant - ImmvaRx Inc.  
(a Biotechnology Co. developing cancer vaccines)  
Rockford, IL

Mar 1989-Jun 1995 Adjunct Associate Professor  
Northwestern University Medical School  
Department of Medicine  
Chicago, IL 60611

July 1979-Dec 1987 Assistant Professor (University Appointment)  
Assistant Scientist (Medical Center Appointment)  
Rush, Presbyterian St. Luke's Medical Center, Rush University and  
Rush Medical School  
Department of Immunology/Microbiology, Chicago, IL 60612

Jul 1977-Jun 1979 Instructor/Postdoctoral Fellow  
Rush, Presbyterian St. Luke's Medical Center and Rush University  
Department of Immunology (H. Gewurz, MD) Chicago, IL 60612

July 1973-Dec 1977 Graduate Research Assistant  
Northwestern University Feinberg School of Medicine  
Department of Biochemistry, Chicago, IL 60611

Aug 1975-June 1977 Instructor  
Illinois College of Podiatric Medicine  
Now Merged with Roslyn Franklin University of Medicine and  
Science  
Department of Biochemistry  
Chicago, IL 60611

Sept 1970-May 1973 Research Associate/ Laboratory Manager  
Bradley University  
Department of Biology (A.G. Galsky, PhD)  
Peoria, IL 61606

June 1972-Aug 1972 National Science Foundation Research Fellow  
Northwestern University  
Department of Biology (J.A. Lippincott, PhD)  
Evanston, IL 60201

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### SELECTED PUBLICATIONS

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1. Chirco KR, Flamme-Wiese MJ, Wiley JS, **Potempa LA**, Stone EM, Tucker B, Mullins RF. 2018. Local and systemic sources of monomeric C-reactive protein and membrane attack complex in the choriocapillaris and AMD (in press)

2. Chirco, KR, **Potempa LA**. 2018. C-reactive Protein as a Mediator of Complement Activation and Inflammatory Signaling in Age-related Macular Degeneration. Mini-Review. *Frontiers in Immunology-Inflammation* 9:article 539. Mar 15, 2018. <http://doi:10.3389/fimmu.2018.00539>
3. Jia Z-K, Li H-Y, Liang Y-L, **Potempa LA**, Ji S-R, Wu Yi. 2018. Monomeric C-reactive protein binds and neutralizes RANKL-induced osteoclast differentiation. *Frontiers in Immunology* 19 February <https://doi.org/10.3389/fimmu.2018.00234>
4. Lv J-M, Lü S-Q, Zhang J, Liu Z-P, Gao B-X, Yao Z-Y, Wu Y-X, **Potempa LA**, Ji S-R, Long M, Wu Y. 2018. Conformational folding and disulfide bonding drive distinct stages of protein structure formation, *Scientific Reports* 24;8(1):1494-1504. (Jan) doi: 10.1038/s41598-018-20014-y
5. Boras E, Slevin m, Gilmore W, **Potempa LA**, Matou-Nasri S. 2017. Common angiogenic signalling pathways induced by monomeric-CRP and FGF-2 through MAP and PI3K. *European J Exp Biol* 7:18-29
6. Braig D, Nero TL, Koch H-G, Kaiser B, Wang X, Thiele JR, Zeller J, Kiefer J, Morton C, **Potempa LA**, Mellett NA, Miles LA, Du X-J, Meikle PJ, Huber-Lang M, Stark GB, Parker MW, Peter K, Eisenhardt SU. 2017. Characterization of transitional changes in the CRP structure leading to the exposure of pro-inflammatory binding sites. *Nature Communications* 23;8:14188 doi 10.1038/ncomms14188
7. Trial J, **Potempa LA**, Entman ML 2016. The Role of C-reactive Protein in Innate and Acquired Inflammation: New Perspectives. *Inflammation and Cell Signaling* 3:e1409 doi:10.14800/ics.1498.
8. Chirco KR, Whitmore SS, Wang K, **Potempa LA**, Halder JA, Stone EM, Tucker BA, Mullins RF. 2016. Monomeric C-reactive protein (mCRP) and inflammation in Age-related Macular degeneration. The role of monomeric C-reactive protein in AMD. *J Pathology* 240(2):173-183 doi: 10.1002/path.4766
9. Li H-Y, Jing Wang J, Meng F, Zhe-Kun Jia Z-K, Su Y, Bai Q-F, Lv L-L, Ma F-R, **Potempa LA**, Yan Y-B, Ji S-R, Wu Y. 2016. An intrinsically disordered motif mediates diverse actions of monomeric C-reactive protein *J Biol Chem* 291(16):8795-8804 doi: 10.1074/jbc.M115.695023
10. Slevin M, Matou S, Zeinolabediny Y, Corpas R, Weston R, Di Napoli M, Petcu E, Sarroca S, Popa-Wagner A, Love S, Font MA, **Potempa LA**, Al-Baradie R, Sanfeliu C, Revilla S, Badimon L, Krupinski J. 2015. Monomeric C-reactive protein-a key molecule driving development of Alzheimer's disease associated with brain ischaemia? *Scientific Reports* 5:13281-13302 DOI:10.1038/srep13281
11. Wu Yi, **Potempa LA**, El Kebir D, Filep JG. 2015. C-reactive protein and inflammation: conformational changes affect function. *Biol Chem* 396(11):1181-1197. doi: 10.1515/hsz-2015-0149
12. **Potempa LA**, Yao Z-Y, Ji S-R, Filep JG, Wu Y. 2015. Solubilization and purification of recombinant modified C-reactive protein from inclusion bodies using reversible

anhydride modification. July 2015 - Biophysics Reports 1 (1):18-33. DOI: 10.1007/s41048-015-0003-2

13. Zhang L, Liu S-H, Wright TT, Shen Z-Y, Li H-Y, Zhu W, **Potempa LA**, Ji S-R, Szalai AJ, Wu Y 2015. C-reactive Protein directly suppresses T helper 1 cell differentiation and alleviates experimental autoimmune encephalomyelitis. *J Immunology* 194(11):5243-5252. doi: 10.4049/jimmunol.1402909
14. Li H-Y, Wang J, Wu Y-X, Zhang L, Liu Z-P, Filep JG, **Potempa LA**, Wu Y, Ji S-R. 2014. Topological Localization of Monomeric C-reactive Protein Determines Pro-inflammatory Endothelial Cell Responses. *J Biol Chem.* May 16;289(20):14283-14290 doi: 10.1074/jbc.M114.555318
15. Boras E, Slevin M, Alexander MY, Gilmore W, Ashworth J, Krupinski J, **Potempa LA**, Abuulkareem IA, Matou-Nasri S. 2014. Monomeric C-reactive protein and Notch-3 cooperatively increase angiogenesis through PI3K signaling pathway. *Cytokine.* Oct;69(2):165-179 doi: 10.1016/j.cyto.2014.05.027
16. El Kebir D, Zhang Y, Wang L, **Potempa LA**, Wu Y, Fournier A, Filep JG. 2011. C-reactive protein-derived peptide 201-206 inhibits neutrophil adhesion to endothelial cells and platelets through CD32. *Journal of Leukocyte Biology* 90(6):1167-1175 doi: 10.1074/jlb.0111032
17. Wang M-Y, Ji S-R, Bai C-J, El Kebir D, Li H-Y, Shi J-M, Zhu W, Costantino S, Zhou H-H, **Potempa LA**, Zhao J, Filep JG, Wu Y. 2011. A redox switch in C-reactive protein modulates activation of endothelial cells. *FASEB J.* 25:3186-3196 doi 10.1096/fj.11-182741
18. Boncler M, Rywaniak J, Szymanski J, **Potempa LA**, Rychlik B, Watala C. 2011. Modified C-reactive protein interacts with platelet glycoprotein Ib $\alpha$ . *Pharmacological Reports* 63:464-475
19. Slevin M, Matou-Nasri S, Turu MM, Luque A, Rovira N, Badimon L, Boluda S, **Potempa LA**, Sanfeliu C, de Vera N, Krupinski J. 2010. Modified C-reactive protein is expressed by stroke neo-vessels and is a potent activator of angiogenesis *in vitro*. *Brain Pathol* 20:151-165
20. Slevin M, Rovina N, Turu M, Luque L, Badimon L, Gaffney J, **Potempa L**, Krupinski J. 2009. Modified C-reactive protein is expressed in adventitia and intimal neovessels from complicated regions of unstable carotid plaques. *The Open Circulation and Vascular Journal.* 2: 23-29. DOI:10.2174/1877382600902010023
21. Ji S-R, Bai L, Shi J-M, Li H-Y, **Potempa LA**, Filep JG, Zhao J, Wu Y. 2009. Monomeric C-reactive protein activates endothelial cells via interaction with lipid raft membrane microdomains. *FASEB J* 23(6):1806-1816 doi: 10.1096/fj.08-116962
22. Ji SR, Wu Y, Zhu L, **Potempa LA**, Sheng FL, Wei L, Zhao J 2007. Cell membranes and liposomes dissociate C-reactive protein (CRP) to form a new, biologically active structural intermediate: mCRP<sub>m</sub>. *FASEB J* 21:284-294

23. Ji SR, Wu Y, **Potempa LA**, Liang Y-H, Zhao J. 2006. Effect of modified C-reactive protein on complement activation: A possible complement regulatory role of mCRP in atherosclerotic lesions. *Atherosclerosis Thrombosis and Vascular Biology* 26:935-941
24. Ji SR, Wu Y, **Potempa LA**, Qiu Q, Zhao J. 2006. The interactions of low density lipoprotein with different forms of C-reactive protein: implication of an active role of modified C-reactive protein in the pathogenesis of atherosclerosis. *International Journal of Biochemistry and Cell Biology* 38:648-661
25. Khreiss T, József L, **Potempa LA**, Filep JG. 2005. Loss of pentameric symmetry in C-reactive protein induces Interleukin-8 secretion through peroxynitrite signaling in human neutrophils. *Circulation Research* 97:690-697
26. Ciubotaru I, Lee YS, **Potempa LA**, Wander RC. 2005 The production of modified C-reactive protein in U937-derived macrophages. *Exp Biol Med* 230 (10):762-770
27. Schwedler SB, Amann K, Wernicke K, Krebs A, Nauck M, Wanner C, **Potempa LA**, Galle J. 2005. Native C-reactive protein (CRP) increases, whereas modified CRP reduces atherosclerosis in ApoE-knockout-mice. *Circulation* 112(7):1016-23
28. Heuertz RM, Schneider GP, **Potempa LA**, Webster RO. 2005. Native and modified C-reactive protein bind different receptors on human neutrophils. *Int'l J Biochemistry and Cell Biology* 37:320-335
29. Khreiss T, József L, Hossain S, Chan JSD, **Potempa LA**, Filep JG. 2002. Loss of pentameric symmetry of C-reactive protein is associated with delayed apoptosis of human neutrophils. *J Biol Chem* 277:40775-40781
30. Zouki C, Haas B, Chan JCD, **Potempa LA**, Filep JG. 2001. Loss of pentameric symmetry of C-reactive protein is associated with promotion of neutrophil-endothelial cell adhesion. *J Immunol* 167:5355-5361