Charlotte W. Pratt
Department of Biology
Seattle Pacific University
3307 Third Avenue West, Ste 205
Seattle, WA 98119
206-281-2189, prattc1@spu.edu

EDUCATION

Ph.D., Biochemistry, 1987, Duke University, Durham, North Carolina.
B.S., Biology, *summa cum laude*, 1982, University of Notre Dame, South Bend, Indiana.

PROFESSIONAL EXPERIENCE

2012–present. Associate Professor of Biology, Seattle Pacific University.

2005–2012. Assistant Professor of Biology, Seattle Pacific University.

2005, 2006. Acting Instructor of Medicinal Chemistry, The University of Washington School of Pharmacy, Seattle, Washington.

2004. Adjunct Instructor of Biology, Seattle Pacific University.

2001–2003. Visiting Assistant Professor of Biochemistry, Seattle Pacific University.

1996–present. Textbook writer, John Wiley & Sons, Inc., New York.

1992–1995. Textbook/media editor, Neil Patterson Publishers/Prentice Hall, Carrboro, North Carolina.

1989–1992. Research Assistant Professor, Department of Pathology, The University of North Carolina at Chapel Hill.

1987–1989. Post-doctoral Fellow, Department of Medicine, The University of North Carolina at Chapel Hill.

AWARDS, FELLOWSHIPS, AND GRANTS

Adjunct Award for Teaching Excellence, College of Arts and Sciences, Seattle Pacific University, 2003
Co-investigator NIH R-01 HL-32656, Heparin cofactor II in tissue injury and wound repair, 1991–1992
UNC University Research Council grant, Chemotactic activity of C1 inhibitor, 1990–1992
Co-investigator NIH Program Project grant HL-06530, Regulation of protein C system by protein C inhibitor, 1989–1992
National Research Service Awards, 1985–1989
National Science Foundation Graduate Fellowship, 1982–1985
James B. Duke Graduate Fellowship, 1982

COURSES TAUGHT at SPU

BIO 1100 Biology: Human Health and Disease
BIO 2101 General Biology I
BIO 3325L Genetics laboratory
BIO 3350 Immunology
BIO/CHM 4361/4362/4363 Biochemistry
CHM 1360 Survey of Biological Chemistry
USEM 1000 University Seminar

PUBLICATIONS: BOOKS

Pratt, C.W. and Cornely, K.C., *Essential Biochemistry*, John Wiley & Sons (2004, 2011, 2014). 700 pp.

Voet, D., Voet, J.G., and Pratt, C.W., *Fundamentals of Biochemistry*, John Wiley & Sons (1999, 2005, 2008, 2012). 1100 pp.

Uzman, A., Eichberg, J., Widger, W., Voet, D., Voet, J.G., and Pratt, C.W., *Student Companion to Fundamentals of Biochemistry*, John Wiley & Sons (2000, 2006, 2009, 2012). 340 pp.

PUBLICATIONS: RESEARCH PAPERS

26. Pratt, C.W. (2011) A biology laboratory exercise using macromolecular assays to distinguish four types of milk, ***J. Microbiol. Biol. Educ.*** 12: 44–45.
25. Pratt, C.W. and Monroe, D.M. (1992) Microtiter plate coagulation assays, ***BioTechniques*** 13: 430–433.
24. Roubey, R.A.S., Pratt, C.W., Buyon, J.P., and Winfield, J.B. (1992) Lupus anticoagulant activity of autoimmune antiphospholipid antibodies is dependent upon β_2-glycoprotein I, ***J. Clin. Invest.*** 90: 1100–1104.
23. Pratt, C.W., Whinna, H.C., and Church, F.C. (1992) A comparison of three heparin-binding serine proteinase inhibitors, ***J. Biol. Chem.*** 267: 8795–8800.
22. Pratt, C.W. and Church, F.C. (1992) Heparin binding to protein C inhibitor, ***J. Biol. Chem.*** 267, 8789–8794.
21. Rogers, S.J., Pratt, C.W., Whinna, H.C., and Church, F.C. (1992) Role of thrombin exosites in inhibition by heparin cofactor II, ***J. Biol. Chem.*** 267: 3613–3617.
20. Pratt, C.W. and Church, F.C. (1991) Antithrombin structure and function, ***Sem. Hematol.*** 28: 3–9.
19. Church, F.C., Pratt, C.W., and Hoffman, M. (1991) Leukocyte chemoattractant peptides from the serpin heparin cofactor II, ***J. Biol. Chem.*** 266: 704–709.
18. Hoffman, M., Pratt, C.W., Corbin, L.W., and Church, F.C. (1990) Characteristics of the chemotactic activity of heparin cofactor II proteolysis products, ***J. Leuk. Biol.*** 48: 156–162.
17. Pratt, C.W., Tobin, R.B., and Church, F.C. (1990) Interaction of heparin cofactor II with neutrophil elastase and cathepsin G, ***J. Biol. Chem.*** 265: 6092–6097.
16. Pratt, C.W., Whinna, H.C., Meade, J.B., Treanor, R.E., and Church, F.C. (1989) Physicochemical aspects of heparin cofactor II, ***Ann. N.Y. Acad. Sci.*** 556: 104–115.
15. Church, F.C., Pratt, C.W., Noyes, C.M., Kalayanamit, T., Sherrill, G.B., Tobin, R.B., and Meade, J.B. (1989) Structural and functional properties of human α-thrombin, phosphopyridoxylated α-thrombin and γ_T-thrombin: identification of lysyl residues in α-thrombin that are critical for heparin and fibrinogen interactions, ***J. Biol. Chem.*** 264: 18419–18425.

14. Pratt, C.W., Macik, B.G., and Church, F.C. (1989) Protein C inhibitor: purification and proteinase reactivity, ***Thrombosis Res.*** 53: 595–602.
13. Hoffman, M., Pratt, C.W., and Church, F.C. (1989) Heparin cofactor II–proteinase reaction products exhibit neutrophil chemoattractant activity, ***Blood*** 73: 1682–1685.
12. Pratt, C.W., Swaim, M.W., and Pizzo, S.V. (1989) Inflammatory cells degrade inter-α-trypsin inhibitor to liberate urinary proteinase inhibitors, ***J. Leukocyte Biol.*** 45: 1–9.
11. Church, F.C., Pratt, C.W., Treanor, R.E., and Whinna, H.C. (1988) Antithrombin action of phosvitin and other phosphate-containing polyanions is mediated by heparin cofactor II, ***FEBS Lett.*** 237: 26–30.
10. Pratt, C.W., Church, F.C., and Pizzo, S.V. (1988) *In vivo* catabolism of heparin cofactor II and its complex with thrombin: evidence for a common receptor-mediated clearance pathway for three serine proteinase inhibitors, ***Arch. Biochem. Biophys.*** 262: 111–117.
9. Church, F.C., Meade, J.B., and Pratt, C.W. (1987) Structure-function relationships in heparin cofactor II: spectral analysis of aromatic residues and absence of a role for sulfhydryl groups in thrombin inhibition, ***Arch. Biochem. Biophys.*** 259: 331–340.
8. Pratt, C.W., Roche, R.A, and Pizzo, S.V. (1987) The role of inter-*a*-trypsin inhibitor and other proteinase inhibitors in the plasma clearance of neutrophil elastase and plasmin, ***Arch. Biochem. Biophys.*** 258: 591–599.
7. Pratt, C.W. and Pizzo, S.V. (1987) Mechanism of action of inter-α-trypsin inhibitor, ***Biochemistry*** 26: 2855–2863.
6. Pratt, C.W. and Pizzo, S.V. (1986) *In vivo* metabolism of inter-α-trypsin inhibitor and its proteinase complexes: evidence for transfer to α_2-macroglobulin and α_1-proteinase inhibitor, ***Arch. Biochem. Biophys.*** 248: 587–596.
5. Westcott, K.R., Wolf, C.C., and Hill, R.L. (1985) Regulation of β-D-galactoside α 2→3 sialyltransferase activity: the effect of detergents and lysophosphatidates, ***J. Biol. Chem.*** 260: 13109–13115.
4. Pratt, C.W. and Pizzo, S.V. (1984) The effect of zinc and other divalent cations on the structure and function of human α_2-macroglobin, ***Biochim. Biophys. Acta*** 791: 123–130.
3. Gonias, S.L., Feldman, S.R., Pratt, C.W., and Pizzo, S.V. (1984) Conformation-specific precipitation of human α_2-macroglobluin by divalent zinc or calf thymus histone H3, ***Arch. Biochem. Biophys.*** 233: 462–468.
2. Feldman, S.R., Gonias, S.L., Ney, K.A., Pratt, C.W., and Pizzo, S.V. (1984) Identification of "embryonin" as bovine α_2-macroglobulin, ***J. Biol. Chem.*** 259: 4458–4462.
1. Mann, R. and Wolf, C.C. (1983) Swimming behavior of larvae of the ocean quahog *Arctica islandica* in response to pressure and temperature, ***Marine Ecology*** 13: 211–218.

RECENT PRESENTATIONS

Pratt, C.W. (2013). Evaluation of Student Attitudes during the Transition to POGIL [poster] American Society for Biochemistry and Molecular Biology Special Symposium series on Student-Centered Education in the Molecular Life Sciences, Seattle University.

Trickett, K., Omdal, H., and Pratt C. (2011) Characterization of defensive mucus from the land slug *Ariolimax columbianus* [poster] Erickson Undergraduate Research Conference, Seattle Pacific University.

Rowland, G. and Pratt C. (2010) Preliminary investigation into NET digestion by macrophages [poster] Erickson Undergraduate Research Conference, Seattle Pacific University.

PROFESSIONAL SOCIETY MEMBERSHIPS

American Society for Biochemistry and Molecular Biology (since 1989)
American Association for the Advancement of Science (since 1987)