

# Paul Nicola Danese

## Contact

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## Work History

2011– 2014– 2012–2014 2011–2012	<b>Goodwin University</b> , School of Nursing & Health Professions Associate Professor Assistant Professor Adjunct Instructor
2011–2019	<b>Capital Community College</b> , Department of Science & Mathematics Adjunct Instructor
2011–2012	<b>Eastern Connecticut State University</b> , Department of Biology Adjunct Instructor
2009–	<b>FDable</b> Founder
2002–2009 2005–2009 2002–2005	<b>Melinta Pharmaceuticals</b> (formerly Rib-X Pharmaceuticals) Research Scientist II Research Scientist
2000–2002 2002 2000–2002 2000	<b>Ironwood Pharmaceuticals</b> (formerly Microbia) Program Manager Team Leader Senior Scientist
1999–2000	<b>Harvard Medical School</b> , Department of Microbiology & Molecular Genetics Postdoctoral Fellow
1996–1999	<b>Harvard University</b> , Department of Molecular & Cellular Biology Postdoctoral Fellow

## Education

1990–1996 1996 1992	<b>Princeton University</b> , Department of Molecular Biology Doctor of Philosophy. Thesis Advisor: Thomas J. Silhavy Master of Arts. Thesis Advisor: Thomas J. Silhavy
1986–1990 1990	<b>University of Massachusetts, Amherst</b> , Department of Biochemistry Bachelor of Science. Thesis Advisor: Thomas L. Mason

## Teaching Experience

2011–	<b>Goodwin College</b>
2018–	Chemistry 110 (General Chemistry I)
2018–	Chemistry 111 (General Chemistry II)
2016	Chemistry 101 (Introductory Chemistry), hybrid
2013–	Chemistry 101 (Introductory Chemistry), on-line
2011–	Chemistry 101 (Introductory Chemistry)
2011–	<b>Capital Community College</b>
2016–	Chemistry 122 (General Chemistry II)
2016–	Chemistry 121 (General Chemistry I)
2014–2016	Biology 235 (Microbiology)
2012–2015	Chemistry 111 (Concepts in Chemistry)
2012–2015	Biology 121 (General Biology)
2011–2012	Biology 105 (Introductory Biology)
2011–2012	<b>Eastern Connecticut State University</b>
	Genetics & Society Laboratory
2014–2015	<b>Coursera</b>
2014	Invited teaching assistant for <a href="#">Data Visualization</a>
2014	Invited teaching assistant for <a href="#">Statistical Inference</a>
2014	Invited teaching assistant for <a href="#">Practical Machine Learning</a>
1999–2000	<b>Harvard Medical School</b>
2000	Guest Lecturer, Graduate course in Molecular Genetics
1999	Mentor for one graduate rotation student
1999	Teaching Assistant, Medical Microbiology Laboratory
1997–1998	<b>Harvard University</b>
1998	Teaching Assistant, Introductory Biochemistry
1997	Mentor for two undergraduate research assistants
1991–1996	<b>Princeton University</b>
1992–1996	Mentor for two undergraduates conducting thesis research
1992–1996	Mentor for three graduate rotation students
1991	Teaching Assistant for MOL345, (Introductory Biochemistry)
1991	Teaching Assistant for MOL212, (Introductory Molecular Biology)

## Awards

1997–2000	<b>Cancer Research Fund of the Damon Runyon–Walter Winchell Foundation</b>
	Postdoctoral Fellowship
1990–1991	<b>Princeton University</b>
	Graduate Scholarship Award
1986–1990	<b>University of Massachusetts, Amherst</b>
1990	Inducted, ΦBK Honor Society
1990	Henry Little Award
	<i>Awarded to highest-ranked senior in the Department of Biochemistry</i>
1986–1990	Chancellor's Talent Award Scholarship
	<i>Tuition waiver based on academic performance</i>

## Peer-Reviewed Research

- 2021 Danese, PN. Search and Analysis of the Food and Drug Administration's (FDA) Adverse Event Reporting System (FAERS). in **O'Donnell's Drug Injury** 5th edition. James T O'Donnell, editor.
- 2017 Tayek, JA, Danese PNN, and Smith MS. Safety of Degludec versus Glargine in Type 2 Diabetes. *New England Journal of Medicine*, 377: 1994–1996.
- 2016 Danese, PN. Search and Analysis of the Food and Drug Administration's (FDA) Adverse Event Reporting System (FAERS). in **O'Donnell's Drug Injury** 4th edition. James T O'Donnell, editor.
- 2014 O'Donnell, JT, Marks, DH, Danese P, and JJ O'Donnell. Drug-Induced Liver Disease: Primer for the Primary Care Physician. *Disease-a-Month*, 60: 55–104.
- 2012 Danese, PN. Search and Analysis of the Food and Drug Administration's Adverse Event Reporting System. p 195–204, in **Drug Injury: Liability Analysis & Prevention** 3rd edition. James T. O'Donnell, editor.
- 2012 Somberg, JC, McEwen, P, Basu, S, Danese, PN, and J Molnar. Medical Device Recalls in the US. *Circulation*: 126: A11403.
- 2009 Pratt, LA and P Danese. More Eyeballs on AERS. *Nature Biotechnology*, 27: 601–602.
- 2008 Lawrence, L, Danese P, DeVito, J, Franceschi, F, and J Sutcliffe. *In vitro* activities of the R $\chi$ -01 oxazolidinones against hospital and community pathogens. *Antimicrobial Agents and Chemotherapy*, 52: 1653–1662.
- 2002 Danese, PN. Antibiofilm approaches: prevention of catheter colonization. *Chemistry and Biology*, 9: 873–880.
- 2001 Danese, PN, Pratt, LA, and R Kolter. Biofilm formation as a developmental process. *Methods in Enzymology*, 336: 19–26.
- 2000 Danese, PN, Pratt, LA, Dove, S, and R Kolter. The outer-membrane protein, Ag43, mediates cell-to-cell interactions within *E. coli* biofilms. *Molecular Microbiology*, 37: 424–432.
- 2000 Danese, PN, Pratt, LA, and R Kolter. Exopolysaccharide production is required for development *Escherichia coli* K-12 biofilm architecture. *Journal of Bacteriology*, 182: 3593–3596.
- 1999 Samuel, ADT, Pitta TP, Ryu, WS, Danese PN, Leung ECW, and HC Berg. 1999. Flagellar determinants of bacterial sensitivity to  $\chi$ -phage. *Proceedings of the National Academy of Sciences, USA*, 96: 9863–9866.
- 1998 Danese, PN, Oliver, GR, Barr, K, Bowman GD, Rick, PD, and TJ Silhavy. Accumulation of the Enterobacterial Common Antigen Lipid II Biosynthetic Intermediate Stimulates *degP* Transcription in *Escherichia coli*. *Journal of Bacteriology*, 180: 5875–5884.
- 1998 Danese, PN, and TJ Silhavy. Targeting and Assembly of Periplasmic and Outer-membrane Proteins in *Escherichia coli*. *Annual Review of Genetics*, 32: 59–94.
- 1998 Danese, PN, and TJ Silhavy. CpxP, a Stress-combative Member of the Cpx Regulon in *Escherichia coli*. *Journal of Bacteriology*, 180: 831–839.

## Peer-Reviewed Research Continued

- 1997 Jones, CH, Danese, PN, Pinkner, JS, Silhavy TJ, and SJ Hultgren. The Chaperone-assisted Membrane Release and Folding Pathway is Sensed by Two Signal Transduction Systems. *EMBO Journal*, 16: 6394–6406.
- 1997 Danese, PN and TJ Silhavy. 1997. The  $\sigma$ -E and the Cpx Signal Transduction Systems Control the Synthesis of Periplasmic Protein-Folding Enzymes in *Escherichia coli*. *Genes & Development*, 11: 1183–1193.
- 1995 Danese, PN, Snyder, WB, Cosma CL, Davis LJB, and TJ Silhavy. The Cpx Two-component Signal Transduction Pathway of *Escherichia coli* Regulates Transcription of the Gene Specifying the Stress-inducible Periplasmic Protease, DegP. *Genes & Development*, 9: 387–398.
- 1995 Danese, PN, Murphy, CK, and TJ Silhavy. Multicopy Suppression of Cold-sensitive *sec* Mutations in *Escherichia coli*. *Journal of Bacteriology*, 177: 4969–4973.
- 1995 Snyder, WB, Davis, LBJ, Danese PN, Cosma CL, and TJ Silhavy. Overproduction of NlpE, a New Outer-membrane Lipoprotein, Suppresses the Toxicity of Periplasmic LacZ by Activation of the Cpx Signal Transduction Pathway. *Journal of Bacteriology*, 177: 4216–4223.
- 1995 Cosma, CL, Danese PN, Carlson, JH, Silhavy TJ, and WB Snyder. Activation of the Cpx Two-component Signal Transduction Pathway in *Escherichia coli* Suppresses Envelope Associated Stresses. *Molecular Microbiology*, 18: 491–505.
- 1993 Leonhardt, SA, Fearon, K, Danese, PN, and TL Mason. 1993. HSP78 Encodes a Yeast Mitochondrial Heat Shock Protein in the Clp Family of ATP-dependent Proteases. *Molecular and Cellular Biology*, 13: 6304–6314.

## Computer Skills

### General Purpose Programming Languages

Python, Java, Ruby, VBScript

### Machine Learning / Scientific Programming

ChemAxon Marvin, OpenBabel, R, Scikit-Learn, SciPy

### Relational Databases

MySQL, Oracle, SQLite

### Office Productivity & Publishing

✂  $\text{\LaTeX}$ , Microsoft Office, PowerBI, VBA

### Web Development

CSS, HTML, Javascript, Lucene, Ruby on Rails, Solr

## Hobbies

♣ Chess · Digital Photography · Digital Typography · Piano ♣