

# **Curriculum Vitae**

## **Nancy A. DiIulio, Ph.D.**

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### **Current Position**

Instructor, Department of Biology, Case Western Reserve University

### **Education**

Graduate: Department of Biological Chemistry, The Pennsylvania State University College of Medicine, Hershey, Pennsylvania.  
Degree: Doctor of Philosophy in Biological Chemistry (1986-1992)

Undergraduate: Carnegie-Mellon University, Pittsburgh, Pennsylvania  
Degree: Bachelor of Science Chemistry,  
Minor: Biochemistry; (1982-1986)

### **Experience**

- 1999-2002 Visiting Assistant Professor, Department of Biology,  
Case Western Reserve University, Cleveland OH
- 1998-1999 Visiting Assistant Professor, Department of Biology, John Carroll University  
20700 North Park Blvd, University Hts. OH 44118 (Sabbatical replacement)
- 1997-1998 Postdoctoral Fellow, Center for Anesthesiology Research, Research Institute,  
Cleveland Clinic Foundation, Cleveland, Ohio.  
Supervisor: Dr. Christine Moravec, Topic: Influence of immune responses on  
cardiac function and evidence for recovery of failing myocardium with  
mechanical support.
- 1997-1998 Instructor-part time, Department of Biology, John Carroll University  
20700 North Park Blvd, University Hts. OH 44118
- 1994-1997 Postdoctoral Fellow Department of Immunology, Research Institute,  
Cleveland Clinic Foundation, Cleveland, Ohio.  
Supervisor: Dr. Robert L. Fairchild, Topic: Mechanisms of inflammatory  
responses in the skin, including contact hypersensitivity to epicutaneously  
applied haptens.
- 1992- 1994 Postdoctoral Fellow Department of Immunology, Research Institute,  
Cleveland Clinic Foundation, Cleveland, Ohio.  
Supervisor: Dr. Michael J. Caulfield, Topic: Identification of autoantigens in  
autoimmune hemolytic anemia in the NZB mouse.
- 1986- 1992 Department of Biological Chemistry, Hershey, Pennsylvania

The Pennsylvania State University College of Medicine  
Supervisor: Dr. V. P. Bhavanandan  
Thesis research: Characterization of the Structure and Expression of the Tumor Antigen Epitectin.

1987-1990 Department of Biological Chemistry, Hershey, Pennsylvania  
The Pennsylvania State University College of Medicine  
Teaching Assistant, Supervisor: Dr. Ross Shiman, Biochemistry

1985-1986 Carnegie-Mellon University, Pittsburgh, Pennsylvania  
Undergraduate research, Supervisor: Dr. John Lindsey, Topic: Development of an automated synthesis station and construction of a library of spectral data for use with the system.

Carnegie-Mellon University, Pittsburgh, Pennsylvania  
Teaching Assistant, Supervisor: Dr. Charles VanDyke, Undergraduate Chemistry Laboratories.

1985 Lord Corporation, Erie, Pennsylvania  
Intern, Elastomer Product Development Laboratory, Topic: Effects of compounding variables on rubber adhesion.

### **Courses Taught and Teaching Honors**

#### **Case Western Reserve University**

|  |                                  |
|--|----------------------------------|
| BIOL 210 Molecular Cell Biology                            | BIOL 215 Cells and Proteins      |
| BIOL 214 Genes and Evolution                               | BIOL 343 Microbiology            |
| BIOL 211 Laboratory in Molecular,<br>Cell and Biochemistry | BIOL 443 Advanced Microbiology   |
| BIOL 221 Physiology Laboratory                             | BIOL 344 Microbiology Laboratory |

#### **Honors:**

Nominated for Carl F. Whitke Award, Spring 2001  
Nominated for the Undergraduate Student Government Teaching Award, Spring 2000

#### **John Carroll University**

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|--|---------------------------------|
| Principles of Biology I-BL 155             | Genetics BL 213                 |
| Principles of Biology Laboratory I-BL 157  | Environmental Biology BL 109    |
| Principles of Biology II-BL 156            | Human Biology BL 112            |
| Principles of Biology Laboratory II-BL 158 | Human Biology Laboratory BL 114 |

## Publications

### Articles:

1. **DiIulio NA**, NG Smedira, PM McCarthy, CS Moravec. Mechanical unloading reverses changes in gene expression in the failing human heart. In preparation
2. Gorbachev A, **NA DiIulio**, and RL Fairchild. IL-12 Augment CD8<sup>+</sup> T cell development for contact hypersensitivity responses and circumvents anti-CD154 antibody mediated inhibition. *J. Immunol.*, 2001 **167(1)**:156-62.
3. Stull LB, **NA DiIulio**, M Yu, CF McTiernan, NB Ratliff, VK Tuohy, CS Moravec. Alterations in cardiac function and gene expression during autoimmune myocarditis in mice. *J. Mol Cell Cardiol.*, 2000 **32**: 2035-2049.
4. **DiIulio NA**, T Engeman, D Armstrong, C Tannenbaum, TA Hamilton, and RL Fairchild. Gro- $\alpha$  recruitment of neutrophils is required for elicitation of contact hypersensitivity. *E. J. Immunol.*, 1999 **29(11)**: 3485-3495.
5. Bhavanandan, VP, Q Zhu, K Yamakami, **NA DiIulio**, S Nair, C Capon, J Lemoine and B Fournet. Purification and characterization of the MUC1 mucin-type glycoprotein, epitectin, from human urine: structure of the major oligosaccharide alditols. *Glycoconjugate J.*, 1998 **15**: 37-49.
6. Xu H, A Banerjee, **NA DiIulio**, RL Fairchild. Development of effector CD8<sup>+</sup> T cells in contact hypersensitivity occurs independently of CD4<sup>+</sup> T cells. *J. Immunol.*, 1997, **158** 4721-4728.
7. **DiIulio NA**, RL Fairchild and MJ Caulfield. The anti-erythrocyte response of NZB mice. Identification of two distinct auroantigens. *Immunology*, 1997, **91** 246-251.
8. **DiIulio NA**, H Xu and RL Fairchild. Diversion of CD4<sup>+</sup> T cell development from regulatory Th2 to effector Th1 cells alters the contact hypersensitivity response. *E. J. Immunol.*, 1996, **26**: 2606-2612.
9. Xu H, **NA DiIulio** and RL Fairchild. T cell populations primed by hapten sensitization in contact sensitivity are distinguished by polarized patterns of cytokine production: IFN- $\gamma$  producing (Tc1) effector CD8<sup>+</sup> T cells and IL-4/IL-10 producing (Th2) negative regulatory CD4<sup>+</sup> T cells. *J. Exp. Med.*, 1996, **183**: 1001-1011.
10. **DiIulio N** and VP Bhavanandan. The saccharides of the MUC 1 mucin-type glycoprotein, epitectin, produced by H.Ep.2 cells in the presence of aryl-N-Acetyl- $\alpha$ -galactosaminides. *Glycobiology*, 1995, **5**: 195-199.
11. **DiIulio N**, Yamakami K, Washington S and VP Bhavanandan. Effect of long term culture of a human laryngeal carcinoma cell line on epitectin production and tumorigenicity in athymic mice. *Glycosylation and Disease*, 1994, **1**: 21-30.

### **Selected Abstracts:**

1. **DiIulio N** and VP Bhavanandan. 1990 Immunofluorescence flow cytometric analysis of epitectin on the H.Ep.2 cell surface. *Glycoconjugate J.* **7**: 480. San Diego, CA.
2. **DiIulio N** and VP Bhavanandan. 1991 Influence of aryl-N-acetyl- $\alpha$ -galactosaminides on the expression of epitectin by H.Ep.2 cells. *Glycoconjugate J.* **8**: 185. Toronto, Ontario.
3. **DiIulio N**, MJ Caulfield and RL Fairchild. 1995 Identification of band 3 as the antigen recognized by a pathogenic autoantibody from NZB mice. Experimental Biology 95, *FASEB* meeting #4556, Atlanta GA.
4. **DiIulio N**, H Xu and RL Fairchild. 1996 IL-12 diverts development of CD4<sup>+</sup> T cells from regulator Th2 to effector Th1 cells in contact hypersensitivity. Autumn Immunology Conference, November 24-26, Chicago IL.
5. **DiIulio N**, P McCarthy, N Smedira, L Barrett-Stull, CS Moravec. 1998 Recovery from the heart failure phenotype following LVAD mechanical support. Heart Failure Summit, October 9-10, Cleveland OH.
6. Moravec CS, ML Ogletree-Hughes, G Haun, JT Lynch, **NA DiIulio**. 1999 Interleukin-6 increases during cardiopulmonary bypass and continues to increase in the ICU. *Anesthesiology*, **91 (Suppl):A276**
7. **DiIulio NA**, PM McCarthy, NG Smedira, CS Moravec. 1999 Reversal of the heart Failure phenotype by mechanical unloading. *J. Heart Lung Transpl* **18(1):89**. San Francisco, California.
8. **DiIulio NA**, LA Aquila-Pastir, NG Smedire, PM McCarthy, CS Moravec. Mechanical Unloading alters the activity of STAT proteins in the Failing Human Heart. Abstract, Cleveland Clinic Foundation 19<sup>th</sup> Annual Research Day. October 19, 2000

### **Professional Memberships and Service**

Service: Department of Biology Curriculum Committee, 2000-2002  
Academic Advisor: 34 Biology Majors  
Undergraduate Research Sponsor for the Summer Program in Undergraduate Research (SPUR)-Summer 2001

Member: American Association for the Advancement of Science  
American Society of Microbiology

Volunteer: Northeast Ohio Science and Engineering Fair: Judge  
Science Olympiad, Case Western Reserve University: Event Captain