

Scott Michael Grayson

C/o WILLSON RESEARCH GROUP • DEPARTMENT of CHEMISTRY and BIOCHEMISTRY
UNIVERSITY of TEXAS, AUSTIN • AUSTIN, TX 78712
PHONE: (512) 471-4781 • FAX: (512) 471-7222 • E-MAIL: sgrayson@mail.cm.utexas.edu

Education

UNIVERSITY of CALIFORNIA, *Department of Chemistry, Berkeley, CA*

- **Ph.D.** in Synthetic Organic-Polymer Chemistry with Jean M. J. Fréchet, 2002

UNIVERSITY of BRADFORD, *Department of Archaeological Sciences, Bradford, UK*

- **M.Phil.** in Archaeological Chemistry with Carl. P. Heron, 1998

TULANE UNIVERSITY, *College of Arts and Sciences, New Orleans, LA*

- **B.S.** in Chemistry and Mathematics, Summa Cum Laude with Departmental Honors, 1996
- **B.A.** in History, Cum Laude, 1996

Technical Experience

2002-present Postdoctoral Researcher, University of Texas, Austin; PI: Prof. C. Grant Willson

- Optimize hydrogel medium as a versatile scaffold for biosensor arrays.

1997-2002 Graduate Research Assistant, University of California, Berkeley, CA; Advisor: Prof. Jean M. J. Fréchet.

- Developed and optimized the synthesis of novel aliphatic polyether dendrimers including orthogonally protected dendrons for selective functionalization.
- Prepared dendronized linear polymers via a divergent growth approach for biomedical applications.
- Characterized dendritic materials utilizing nuclear magnetic resonance

spectroscopy,

matrix-assisted laser desorption ionization mass spectrometry, size exclusion chromatography, differential scanning calorimetry, and infrared spectroscopy.

1996-1997 Graduate Research Assistant, University of Bradford, UK; Advisor: Prof. Carl P. Heron

- Characterized organic residues associated with archaeological and ethnographic ceramic utilizing gas chromatography-mass spectrometry to ascertain their use.

1995-1996 Undergraduate Research Assistant, Tulane University, New Orleans, LA; Advisor: Prof. Allen Apblett

- Quantified concentration of alkaline earth metals in pre-Columbian bone samples using inductively-coupled plasma spectroscopy and X-ray fluorescence to elucidate the diet of lower Mississippi Valley cultures.

1993-1994 Undergraduate Research Assistant, Tulane University, New Orleans, LA; Advisor: Prof. Donald Marquardt

- Investigated the synthesis of non-planar aromatic hydrocarbon precursors towards the goal of a rational synthesis of buckminsterfullerenes and their derivatives.

Professional Affiliations

- The American Chemical Society

Honors & Awards

- Outstanding Graduate Instructor Award, *University of California, Berkeley*, 1999
- National Science Foundation Predoctoral Fellow, 1996-2000
- Merck Index Award for Chemistry, *Tulane University*, 1996
- Dean's List, *Tulane University*, 1992-96
- Dean's Honor Scholarship, *Tulane University*, 1992-96
- Coca-cola Summer Research Scholarship, *Tulane University*, 1994
- Eagle Scout, *Boy Scouts of America*, 1991

Publications

- (1) Grayson, Scott M.; Jayaraman, Manikandan; Fréchet, Jean M. J. *A novel synthesis of aliphatic polyether dendrimers.* **Polym. Mater. Sci. Eng.** **1999**, *80*, 64-65.
- (2) Grayson, Scott M.; Jayaraman, Manikandan; Fréchet Jean M.J. *Convergent synthesis and 'surface' functionalization of a dendritic analog of poly(ethylene glycol).* **Chem. Commun.** **1999**, 1329-1330.
- (3) Grayson, Scott M.; Fréchet, Jean M. J. *Synthesis and Surface Functionalization of Aliphatic Polyether Dendrons.* **J. Am. Chem. Soc.** **2000** *122* (42), 10335-10344.
- (4) Grayson, Scott M.; Fréchet, Jean M. J. *Divergent synthesis of aliphatic polyester dendrons grafted to poly(hydroxystyrene).* **Polym. Mater. Sci. Eng.** **2001**, *84*, 861-862.
- (5) Grayson, Scott M.; Fréchet, Jean M. J. *Divergent Synthesis of Dendronized Poly(p-hydroxystyrene).* **Macromolecules** **2001**, *34*, 6542-6544.
- (6) Grayson, Scott M.; Fréchet, Jean M. J. *Convergent Dendrons and Dendrimers: from Synthesis to Applications.* **Chem. Rev.** **2001**, *101*, 3819-3868.
- (7) Grayson, Scott M.; Fréchet, Jean M. J. *Synthesis and Chemical Modification of Novel Triallyl Chloride Dendrimer Core.* **Org. Lett.**, **2002**, *4*, 3171-3174.

Abstracts of Conference Presentations

- (8) Grayson, Scott M.; Jayaraman, Manikandan; Fréchet, Jean M. J. *A novel synthesis of aliphatic polyether dendrimers.* **217th ACS National Meeting**, Anaheim, CA, March 21-25, 1999, PMSE-105.
- (9) Grayson, Scott M.; Jayaraman, Manikandan; Fréchet, Jean M. J. *Selective surface modification of orthogonally protected aliphatic polyether dendrons.* **219th ACS National Meeting**, San Francisco, CA, March 26-30, 2000, POLY-114.
- (10) Grayson, Scott M.; Fréchet, Jean M. J. *Divergent synthesis of aliphatic polyester dendrons grafted to poly(hydroxystyrene).* **221st ACS National Meeting**, San Diego, CA, April 1-5, 2001, PMSE-477.
- (11) Grayson, Scott M.; Lee, Cameron C.; Fréchet, Jean M. J. *The Convergent and Divergent Dendronization of a Biodegradable Poly(caprolactone).* **224th ACS National Meeting**, Boston, MA, August 18-22, 2002, POLY-425.

References Available upon request.