

CURRICULUM VITAE

Name: Shawn E. Cowper, M.D.

School: Yale University School of Medicine

Education: B.S. Cellular and Molecular Biology, University of Michigan, 1986
B.S. English Literature, University of Michigan, 1986
M.D. Michigan State University, College of Human Medicine, 1990

Career/Academic Appointments:

1990-91 PGY1, General Surgery, Henry Ford Hospital, Detroit, MI
1992-95 Primary Care Physician, Peninsula Medical Center, Marblehead, Ohio
1992-95 Staff, Magruder Hospital, Port Clinton, Ohio
1995-99 PGY2-5, Anatomic and Clinical Pathology, University of South Florida, Tampa, FL.
1998-99 Chief Resident, Pathology, University of South Florida, Tampa, FL.
1999-2001 Fellow in Dermatopathology, University of California, San Francisco, CA.
2001-2008 Assistant Professor, Dept. of Dermatology and Pathology, Yale University School of Medicine, New Haven, CT
2008-present Associate Professor, Dept. of Dermatology and Pathology, Yale University School of Medicine

Administrative Positions:

2007 Physician Information Technology Liaison (Dermatopathology)
2006 Guest Editor: Seminars in Cutaneous Medicine and Surgery (March)
2002-04 Director, Dermatopathology LIS search and implementation
2002-03 Assistant Curriculum Director, Dermatopathology Master Series (Mdlive.net)
1999-present Director, International Registry for Nephrogenic Systemic Fibrosis
1998-99 Chief Resident, Anatomic and Clinical Pathology, USF, Tampa, FL.
1997-present Webmaster & Editor, Pathmax.com (Pathology Education Metaindex)
1992-95 Director, Peninsula Medical Center, Marblehead, Ohio

Board Certification:

American Board of Pathology, Anatomic and Clinical Pathology, 2001
American Board of Pathology, Dermatopathology, 2002

Professional Honors & Recognition:

A) International/National/Regional

2005: Certificate of appreciation, College of American Pathologists (service on Internet Editorial Board)
2000: Presidential Honor, College of American Pathologists
1999: Pathology Alumni Foundation, Resident Research Award
1999: Henry A. Azar Award for Academic Excellence in Pathology
1998: Informatics Travel Award, College of American Pathologists

- B) University
1998-99: Chief Residency, Pathology, University of South Florida, Tampa, FL.

Grant History:

A) Past Grants

Agency: General Clinical Research Center
I.D.# Established Investigator Grant
Title: "Nephrogenic Fibrosing Dermopathy an investigation of disease features and pathophysiology"
coP.I.: Shawn Cowper, M.D., Richard Bucala, M.D. Ph.D.
Percent effort: 90%
Total costs for project period: \$19,800
Project period: 01/01/2004 – 12/30/2006

Agency: Dermatology Foundation
I.D.# Established Investigator Grant
Title: "Dermpath.info: An online dermatopathology reference featuring integrated virtual microscopy"
P.I.: Shawn Cowper, M.D.
Percent effort: 70%
Total costs for project period: \$20,000
Project period: 01/01/2002 – 12/30/2003

Lectures, Courses, Web-based Education:

- 2007: Radiological Society of North America, Chicago, IL. "Nephrogenic Systemic Fibrosis: Discovery, Detection, and Details." In Friday Imaging Symposium: "Intravenous Contrast Agents for CT and MR Imaging: Predicting and Preventing Adverse Events."
- Neuroscience Grand Rounds, Yale University, New Haven, CT., "Nephrogenic Systemic Fibrosis: Is it the Gadolinium?"
- Dermatopathology Seminar, University of California, San Francisco, CA. "Nephrogenic Sytemic Fibrosis, the first 10 years."
- American Society of Nephrology, Renal Week, San Franciso, CA. "Dermatology for Nephrologists."
- 2nd Annual Body MRI Update, Phoenix, AZ. "Review of Nephrogenic Systemic Fibrosis."
- 21st World Congress of Dermatology, Buenos Aires, Argentina. "Nephrogenic Fibrosing Dermopathy." In Symposium 10: "Scleroderma and other sclerosing skin conditions."

New England Dermatological Society, New Haven, CT., "Nephrogenic Systemic Fibrosis Update."

Department of Medicine Grand Rounds, KCMS, Michigan State University, Kalamazoo, MI. "Nephrogenic Systemic Fibrosis: The first 10 years."

Department of Medicine Grand Rounds, Yale University, New Haven, CT., "Nephrogenic Systemic Fibrosis and the role of MRI contrast media"

Department of Medicine Grand Rounds, University of Alabama, Birmingham, AL. "Nephrogenic Systemic Fibrosis: The first 10 years."

Division of Rheumatology Grand Rounds, Yale University, New Haven, CT., "Nephrogenic Systemic Fibrosis: Is it the gadolinium?"

Evening Symposium (Tyco/Mallinckrodt Pharmaceuticals) Berlin, Germany, "Updates on Nephrogenic Systemic Fibrosis."

NSF working group of International Society of Magnetic Resonance in Medicine, Berlin, Germany, "Nephrogenic Systemic Fibrosis: What is it, where does it come from?"

Department of Dermatology, Charité Hospital, Berlin, Germany, "Nephrogenic Systemic Fibrosis."

First Annual Scientific Symposium on Nephrogenic Systemic Fibrosis and MRI Contrast, Yale University, Keynote Address: "Perspective of ten years of Nephrogenic Systemic Fibrosis."

Hospitalist In-service, Yale New Haven Hospital, New Haven, CT, "Nephrogenic Systemic Fibrosis."

Audio Interview, Dialogues in Dermatology, Washington DC., "NSF and Gadolinium."

American Academy of Dermatologists, Washington DC., "Is it the Gadolinium?"

Briefing to US Food and Drug Administration, Silver Spring, MD, "Nephrogenic Systemic Fibrosis: A ten year overview."

2006: Professor Rounds, Yale Dept of Medicine, New Haven, CT., "Nephrogenic Systemic Fibrosis."

Yale Nephrology Grand Rounds, New Haven, CT., "Nephrogenic Systemic Fibrosis, Case Presentation and Update."

American Society of Dermatopathology, Chicago, IL., "Nephrogenic Systemic Fibrosis: Truths, myths and speculations."

DC Dermatology Conference, Washington DC., "Nephrogenic Systemic Fibrosis."

Medical Grand Rounds, St. Vincent's Hospital, Bridgeport, CT., "Nephrogenic Systemic Fibrosis."

Medical Grand Rounds, St. Raphael's Hospital, New Haven, CT., "Nephrogenic Systemic Fibrosis."

2005: Advances in Research Conference: Why kidneys fail. American Society of Nephrology, Philadelphia, PA., "Nephrogenic Fibrosing Dermopathy."

New England Dermatological Society, New Haven, CT., "Nephrogenic Fibrosing Dermopathy Update."

American Society of Dermatopathologists, Seattle, WA., "Fibrosing and Sclerosing Disorders."

2004: Dermatology Grand Rounds, University of Pennsylvania, Philadelphia, PA., "Nephrogenic fibrosing dermopathy: The First Six Years."

American Society of Dermatopathologists, Boston, MA., "Self Assessment Course"

2003: New England Dermatological Society, New Haven, CT., "Nephrogenic Fibrosing Dermopathy Update."

Division of Rheumatology Grand Rounds, Yale University, New Haven, CT., "Nephrogenic Fibrosing Dermopathy."

Dermatopathology Master Series (mdlive.net), "Cutaneous Anatomy (parts 1 & 2)."

Dermatopathology Master Series (mdlive.net), "Inflammatory Skin Disease, Case Review."

Dermatopathology Master Series (mdlive.net), "Cutaneous Deposits."

2002: Division of Nephrology Grand Rounds, Yale University, New Haven, CT., "Nephrogenic Fibrosing Dermopathy."

Department of Pathology Annual Retreat, Hancock, MA., "Nephrogenic Fibrosing Dermopathy."

2001: New England Dermatological Society, New Haven, CT., "Nephrogenic Fibrosing Dermopathy."

Virtual Microscopy: Teaching dermatopathology with flashpix images delivered via a streaming web-based image-server. (<http://www.pathmax.com/apiiii/exp.html>)

2000: International Society of Dermatopathology, San Francisco, CA., "Fibrosing Dermopathy of Dialysis."

Division of Dermatology Grand Rounds, University of California, San Francisco, "Splitting Hairs: The histopathologic evaluation of alopecia."

Splitting Hairs: The histopathologic evaluation of alopecias.
(<http://www.pathmax.com/hair.html>)

Resident teaching session, University of California, San Francisco, CA. "Epidermal Bullous and Vesicular Disorders."

International Center for Nephrogenic Fibrosing Dermopathy Research
(<http://www.icnfd.org>) (<http://www.thickskin.info>)

- 1999: Pathology Research Day, University of South Florida, Tampa, FL. "Pulmonary injury patterns in mice following exposure to martian and lunar dust simulants."
- Resident teaching session, University of California, San Francisco, CA. "Epidermal Malformations."
- Resident lecture, Department of Pathology, University of South Florida, Tampa, "Androgenetic Alopecia: Science and Snake Oil."
- 1998: Resident lecture, Department of Pathology, University of South Florida, Tampa, "Death: A vicarious tour of life's final moments..."
- Resident lecture, Department of Pathology, University of South Florida, Tampa, "Consumption: Mankind's battle with tuberculosis."
- Resident lecture, Department of Pathology, University of South Florida, Tampa, "Blood Typing: When what you see isn't what you get..."
- 1997: Pathmax: Pathology Education Directory (<http://www.pathmax.com>)
- Resident lecture, Department of Pathology, University of South Florida, Tampa, "Unraveling the Romanov Mystery: Forensics, Genealogy and DNA fingerprinting."
- Resident lecture, Department of Pathology, University of South Florida, Tampa, "The Conquest of Smallpox."
- 1996: Resident lecture, Department of Pathology, University of South Florida, Tampa, "Unsafe at any speed: The forensic evaluation of motorist death."

PROFESSIONAL SERVICE

Journal Service

Reviewer Ad Hoc: Amer J of Dermatopathology, J of Cutaneous Pathology, Amer J of Kidney Disease, Amer J of Medicine, J Amer Acad of Dermatology, British J of Dermatology, Seminars in Arthritis and Rheumatism, New England J of Med, Lancet, Amer J of Transplantation, Nature Clinical Practice: Nephrology, Pediatric and Developmental Pathology, Clinical J of the Amer Society of Nephrology, Clinical and Experimental Dermatology, J of Magnetic Resonance Imaging, Clinical Nephrology

Professional Organizations

National Kidney Foundation/American College of Radiology

2007 Member, Nephrogenic Systemic Fibrosis Definition Workgroup

International Society of Magnetic Resonance in Medicine

2007 Advisor, Nephrogenic Systemic Fibrosis Work Group

Connecticut Society of Dermatologists

2001-present Member

United States and Canadian Academy of Pathology

2002-present Member

American Society of Dermatopathology

2001-present Member

American Academy of Dermatology

2001-present Affiliate

International Society of Dermatopathology

2001-present Member

Association for Pathology Informatics

2000-present Member

College of American Pathologists

2003-2007 Advisor, Internet Editorial Board

2000-2002 Member, CAP World Wide Web Editorial Board (Internet Editorial Board)

2001 Member, Virtual Informatics College Project Planning and Design Group

1999-2000 Junior Member, CAP World Wide Web Editorial Board

1998-1999 Resident Forum Delegate, Florida, College of American Pathologists

1997-1999 Inspector, Lab Accreditation Program

Florida West Coast Association of Pathologists

1995-1999 Resident Member

Industrial Advisory

2007 Member, Pathology Working Group, Rat/Gadolinium exposure study, Experimental Pathology Laboratories

2007-present Member, NSF Expert Panel, Bayer-Schering Pharma, AG (unpaid)

2002-present Member, Advisory Board (derm.md) (unpaid)

Media

1. Ramsey M. Nephrogenic systemic fibrosis. WVIT Channel 30 News, Hartford, CT. February 2007
2. Katz A. City doctor on the trail of a rare disease. New Haven Register, New Haven, CT. January 14, 2007

Yale University Service

University Committees

2005-present Member, Medical Campus IT Advisory Committee

Medical School Committees

2002-present Member, Yale Medical School Technology Working Group

1997-1999 Member, University of South Florida Medical School Teaching Committee

Other Committees

2002 Member, Yale Medical Group Web Project Planning Committee

BIBLIOGRAPHY:

Peer-reviewed manuscripts

1. Cowper SE, Fiorica JV, Haller EM, Nicosia SV, Jones M, and Coppola D. Papillary Squamous Cell Carcinoma of the Vagina. *Cancer Control* (5)2: 179-183, 1998
2. Cowper SE. Traveling on the Information Superhighway: An express lane for pathologists and dermatopathologists. *J Cutaneous Pathol* 25(9): 491, 1998
3. Cowper SE, Lopez MA, Foulis PR. The lack of diagnostic utility of lactate dehydrogenase isoenzymes in the evaluation of acute myocardial infarction. *Laboratory Medicine* 29(10): 629-32, 1998
4. Morgan MB and Cowper SE. Expression of p27 (kip1) in Spitz nevi and melanomas. *Amer J Dermatopathol* 21(2): 121-124, 1999
5. Cowper SE, Morgan MB. Solitary Fibrous Tumor of the Skin. *Amer J Dermatopathol* 21(3): 213-9, 1999
6. Nelson C, Cowper S, and Morgan MB. p53, mdm-2, and p21(waf-1) in the Porokeratoses. *Amer J Dermatopathol* 21(5): 420-5, 1999
7. Cowper SE, Robin HS, Steinberg SM, Su LD, Gupta S, LeBoit PE. Scleromyxoedema-like cutaneous diseases in renal-dialysis patients. *The Lancet* 356(9234), 16 September 2000, 1000-1
8. Cowper SE, Su L, Robin H, Bhawan J, LeBoit PE. Nephrogenic Fibrosing Dermopathy. *Amer J Dermatopathol* 23(5): 383-393, 2001
9. Cowper SE, Rosenberg AS, Morgan MB. An Investigation of Apoptosis in Androgenetic Alopecia. *Amer J Dermatopathol* 24(3): 204-8, 2002
10. Chamlin SL, Cowper SE, Longley BJ, Williams ML. Generalized bullae in an infant. *Arch Dermatol* 138: 831-6, 2002
11. Lam CW, James JT, McCluskey R, Cowper S, Balis J, Muro-Cacho C. Pulmonary toxicity of simulated lunar and Martian dusts in mice: I. Histopathology 7 and 90 days after intratracheal instillation. *Inhal Toxicol* 14(9): 901-16, 2002

12. Scheinfeld NS, Cowper SE. Nephrogenic Fibrosing Dermopathy. eMedicine Journal [emedicine web site] Available at <http://www.emedicine.com>, 2003.
13. Cowper SE. Nephrogenic Fibrosing Dermopathy: The first six years. *Curr Opin Rheum* 15(6): 785-90, 2003.
14. Quan TE, Cowper S, Wu SP, Bockenstedt LK, Bucala R. Circulating Fibrocytes: collagen-secreting cells of the peripheral blood. *Int J Biochem and Cell Bio* 36: 598-606, 2004.
15. McNiff JM, Subtil AS, Cowper SE, Lazova RL, Glusac EJ. Case 35-2004: Cellular Digital Fibromas: distinctive CD34-positive lesions that may mimic dermatofibrosarcoma protuberans. *J Cutan Pathol* 32(6): 413-8, 2005.
16. McNiff JM, Cowper SE, Lazova R, Subtil A, Glusac EJ. CD56 Staining in Merkel Cell Carcinoma and Natural Killer Cell Lymphoma: Magic Bullet, diagnostic pitfall, or both? *J Cutaneous Pathol* 32(8): 541-5, 2005.
17. Cowper SE. Nephrogenic Systemic Fibrosis: The Nosological and Conceptual Evolution of Nephrogenic Fibrosing Dermopathy. (Invited editorial) *Amer J Kidney Dis* 46(4):763-5, 2005.
18. Cowper SE and Watsky K. Kidney Disease and Stiff Legs – Module II, pp 1-2. Maintenance of Certification Manual for Dermatology (MOCMD). American Academy of Dermatology, Schaumburg, IL, September 1, 2005
19. Cowper SE, Bucala R. Nephrogenic Fibrosing Dermopathy/Nephrogenic Systemic Fibrosis: Setting the Record Straight. (Invited editorial) *Sem Arth Rheum* 35(4):208-10, February 2006
20. Cowper SE. Guest editor introduction. *Sem Cut Med Surg* 25(1): 1, March 2006
21. Sperling LC and Cowper SE. The histopathology of primary cicatricial alopecia. *Sem Cut Med Surg Rheum* 25(1): 41-50, March 2006
22. Quan TE, Cowper SE and Bucala R. The role of circulating fibrocytes in fibrosis. *Curr Rheum Reports* 8(2): 145-50, March 2006
23. Cowper SE and Boyer PB. Nephrogenic Systemic Fibrosis: An Update for Rheumatology Professionals. *Curr Rheum Reports* 8(2): 151-7, March 2006
24. Dehoratius DM and Cowper SE. Nephrogenic Systemic Fibrosis: An Emerging Threat Among Renal Patients. *Sem in Dialysis* 19(3): 191-4, March 2006
25. Galan A, Cowper SE, Bucala R. Nephrogenic Systemic Fibrosis (Nephrogenic fibrosing dermopathy). *Curr Opin Rheum* 18(6): 614-7. November 2006
26. High WA, Ayers RA, Chandler J, Zito G, Cowper SE. Gadolinium is detectable within the tissue of patients with nephrogenic systemic fibrosis. *J Amer Acad Dermatol* 56(1): 21-26. January 2007

27. Kuo PH, Kanal E, Abu-Alfa A, Cowper SE. Gadolinium-Based MRI Contrast and Nephrogenic Systemic Fibrosis. [Editorial] *Radiology* 242(3): 647-9. March 2007
28. Deo A, Fogel MA, Cowper SE. Nephrogenic Systemic Fibrosis: A Population Study Examining the Relationship of Disease Development to Gadolinium Exposure. *Clin J Am Soc Nephrol* 2(2): 264-7. March 2007
29. High WA, Ayers RA, Cowper SE. Gadolinium is quantifiable within tissue of patients with nephrogenic systemic fibrosis. *J Amer Acad Dermatol* 56(4): 710-2. April 2007
30. Introcaso CE, Hivnor C, Cowper S, Werth VP. Nephrogenic fibrosing dermatopathy/nephrogenic systemic fibrosis: a case series of nine patients and review of the literature. *Int J Dermatol* 46(5): 447-52. May 2007
31. Cowper SE, Kuo PH, Bucala R. Nephrogenic Systemic Fibrosis and Gadolinium Exposure: Association and Lessons for Idiopathic Fibrosing Disorders. (Invited editorial) *Arth and Rheum* 56(10): 3173-5. Sep 2007
32. Moreno-Romero JA, Tigell SS, Mascaro JM, Mateu CH, Cowper SE. Nephrogenic systemic fibrosis: A case series with gadolinium as a possible etiologic factor. *Br J Dermatol* 157(4):783-7. Oct 2007 Epub 2007 Jul 11

Case Reports, Technical Notes, Letters

1. Cowper SE, Morgan MB. Response to letter to the editor. *Amer J Dermatopathol* 23(3): 275, 2001
2. Cowper SE, Bucala R. Nephrogenic Fibrosing Dermatopathy: Suspect Identified, Motive Unclear. *Amer J Dermatopathol* 25(4): 358, 2003.
3. Cowper SE, Bucala R, Leboit P. Case 35-2004: Nephrogenic Fibrosing Dermatopathy. *N Engl J Med* 352(16): 1723, 2005.

Reviews, Chapters, Books

1. Kucher CL and Cowper SE. Nephrogenic Systemic Fibrosis: A prototype fibrocyte disease in "Fibrocytes: New Insights into Tissue Repair and Systemic Fibroses" ed. Bucala R. ISBN 981-256-869-7 p195-225, 2007, World Scientific.
2. Miskulin D, Gul A, Rudnick MR and Cowper SE. Nephrogenic Systemic Fibrosis/Nephrogenic Fibrosing Dermatopathy in severe renal failure. In: "UpToDate" ed. Rose BD, 2007, UpToDate, Waltham, MA.
3. Cowper SE. Nephrogenic Systemic Fibrosis: A review and exploration of the role of gadolinium. *Advan in Dermatol* 23:131-54. 2007

Papers in Press

1. Puri PK, Galan A, Glusac EJ, Cowper SE. Metastatic cutaneous carcinoid tumor mimicking an adnexal poroid neoplasm. *J of Cutan Pathol* 35:53-7 [Accepted for Jan 2008]
2. Cowper SE. Nephrogenic Systemic Fibrosis: An Overview. *JACR* [accepted]

3. Cowper SE, Rabach M, Girardi M. Clinical and Histological Findings in Nephrogenic Systemic Fibrosis. Eur J Rad [accepted]
4. Cowper SE, Saab G. Nephrogenic Systemic Fibrosis: Questionable Conclusions Regarding Prevalence and Early Mortality. Arthritis & Rheumatism [accepted]
5. Knopp E, Cowper SE. Nephrogenic Systemic Fibrosis: Early Recognition and Treatment. Seminars in Dialysis [accepted]

Accepted Book Proposal

Cowper SE, ed..Nephrogenic systemic fibrosis (tentative title) Humana Press, proposed pub date late 2008