

BIOGRAPHICAL SKETCH

Provide the following information for the key personnel in the order listed on Form Page 2.

NAME Nour Abdalla, Sherif Gamal, MD	POSITION TITLE Assistant Professor of Radiology
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EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)			
INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(S)	FIELD OF STUDY
Cairo University, Cairo, Egypt	M.S.	1997	Radiology
Cairo University School of Medicine, Cairo, Egypt	M.D.	1992	Medicine

RESEARCH AND PROFESSIONAL EXPERIENCE: Concluding with present position, list, in chronological order, previous employment, experience, and honors. Include present membership on any Federal Government public advisory committee. DO NOT EXCEED TWO PAGES.

RESEARCH AND PROFESSIONAL EXPERIENCE

- 3/1993 – 2/1994 **Intern**, Cairo University Hospitals, Cairo, Egypt
- 3/1994 – 3/1997 **Resident**, Department of Diagnostic Radiology, Cairo University Hospitals, Cairo, Egypt
- 12/1997-7/1998 **Clinical Demonstrator**, Department of Diagnostic Radiology, Cairo University Hospitals, Cairo, Egypt
- 8/1998 –2/2000 **Assistant Lecturer of Diagnostic Radiology**, Department of Diagnostic Radiology, Cairo University Hospitals, Cairo, Egypt
- 11/1997-2/2000 **Staff Radiologist**, Nile Diagnostic Center (Nile Scan), Cairo, Egypt
- 3/2000- 6/2002 **Magnetic Resonance Imaging Research Fellow**, Department of Diagnostic Radiology/MRI University Hospitals of Cleveland, Case Western Reserve University, Cleveland, OH
- 9/2002- present **Assistant Professor of Radiology**, Case Western Reserve University School of Medicine
Attending Radiologist, Department of Radiology, University Hospitals of Cleveland, Cleveland, OH

AWARDS AND HONORS:

Principal Drafter of the first American College of Radiology guidelines on Interventional Magnetic Resonance Imaging. In Press.

Official abstract reviewer for the International Society of Magnetic Resonance in Medicine (ISMRM) annual meetings (2003 and 2004).

Whitaker Student Paper Award at the Proceedings of The 25th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (IEEE EMBS) 2003, Cancun, Mexico. Breen MS, Wilson DL, Lazebnik RS, Perrin Cheung, Nour SG, Lewin JS. MRI-guided Radiofrequency Thermal Ablation: 3D Correlation of MR Lesion Images with Tissue Viability for Immediate Post-ablation Treatment Assessment.

Selected peer-reviewed publications (2000-present). Do not include publications submitted or in preparation.

- [Lewin JS, Nour SG, Duerk JL](#). Magnetic resonance image-guided biopsy and aspiration. *Top Magn Reson Imaging*. 2000 Jun;11(3):173-83.
- Nour SG, Aschoff AJ, Mitchell IC, Emancipator SN, Duerk JL, Lewin JS. MR-Guided Radiofrequency (RF) Thermal Ablation Of The Lumbar Vertebrae In A Porcine Model. *Radiology* 2002 Aug, 224(2): 452-62.
- Faiss S, Lewin JS, Nour SG, Zeitz M, Duerk JL, Wacker FK. Endoscopically inserted endoluminal receiver coil for high-resolution magnetic resonance imaging of the pancreas: Initial results in an animal model. *Gastrointest Endosc*. 2003 Jan;57(1):106-10.
- M.S. Breen, T.L. Lancaster, R.S. Lazebnik, S.G. Nour, J.S. Lewin, and D.L. Wilson. Three Dimensional Method for Comparing In Vivo Interventional MR Images of Thermally Ablated Tissue with the Cellular Response. *J Magn Reson Imaging*. 2003 Jul;18(1):90-102.

5. [Wacker FK, Maes RM, Jesberger JA, Nour SG, Duerk JL, Lewin JS](#). MR Imaging-Guided Vascular Procedures Using CO(2) as a Contrast Agent. *AJR Am J Roentgenol*. 2003 Aug;181(2):485-9.
6. [Lazebnik RS, Breen MS, Fitzmaurice M, Nour SG, Lewin JS, Wilson DL](#). Radio-frequency-induced thermal lesions: subacute magnetic resonance appearance and histological correlation. *J Magn Reson Imaging*. 2003 Oct;18(4):487-95.
7. [Zaidat OO, Zahuranec DB, Ubogu EE, Fernandes-Filho JA, Suarez JI, Sunshine JL, Tarr RW, Mirarchi S, Nour SG, Selman WR, Landis DM](#). Asymptomatic middle cerebral artery stenosis diagnosed by magnetic resonance angiography. *Neuroradiology*. 2004 Jan;46(1):49-53. Epub 2003 Dec 04.
8. [Nour SG, Lewin JS, Gutman M, Hillenbrand C, Wacker FK, Wong JW, Mitchell IC, Armstrong CB, Hashim MM, Duerk JL, Strauss M](#). Percutaneous MR imaging-guided radiofrequency interstitial thermal ablation of tongue base in porcine models: implications for obstructive sleep apnea syndrome. *Radiology*. 2004 Feb;230(2):359-68.
9. Paspulati RM, Bhatt S, Nour SG. First Trimester Bleeding. *Radiol Clin North Am*. 2004 Mar;42(2):297-314.
10. Lewin JS, Nour SG, Connell CF, Sulman A, Duerk JL, Resnick MI, Haaga JR. A Phase II Clinical Trial of Interactive MR-Guided Interstitial Radiofrequency Thermal Ablation of Ten Primary Kidney Tumors – Initial Experience. *Radiology*. 2004 Sep;232(3):835-45
11. Breen MS, Lazebnik RS, Fitzmaurice M, Nour SG, Lewin JS, Wilson DL. Radiofrequency Thermal Ablation: Correlation of Hyperacute MR Lesion Images with Tissue Response. *J Magn Reson Imaging*. 2004 Sep;20(3):475-86.
12. Wacker FK, Nour SG, Eisenberg R, Duerk JL, Lewin JS. MR Imaging-Guided Radiofrequency Ablation of Lung Tissue: Necessity or Overkill? *AJR Am J Roentgenol*. 2004 Sep;183(3):599-603.
13. Merkle EM, Nour SG, Lewin JS. MR imaging follow-up after percutaneous radiofrequency ablation of renal cell carcinoma: findings in 18 patients during first 6 months. *Radiology*. 2005 Jun;235(3):1065-71.
14. Nour SG, Lewin JS. Percutaneous biopsy from blinded to MR guided: an update on current techniques and applications. *Magn Reson Imaging Clin N Am*. 2005 Aug;13(3):441-64. Review.
15. Nour SG, Lewin JS. Radiofrequency thermal ablation: the role of MR imaging in guiding and monitoring tumor therapy. *Magn Reson Imaging Clin N Am*. 2005 Aug;13(3):561-81. Review.
16. Nour SG. MRI-guided and monitored radiofrequency tumor ablation.(1). *Acad Radiol*. 2005 Sep;12(9):1110-20.
17. Breen MS, Lazebnik RS, Nour SG, Lewin JS, Wilson DL. Three-dimensional comparison of interventional MR radiofrequency ablation images with tissue response. *Comput Aided Surg*. 2004;9(5):185-91.

Textbook Chapters:

1. Nour SG, Lewin JS. Nasopharynx and Oropharynx. In: JR Haaga, CF Lanzieri, DJ Sartoris (eds): *Computed Tomography and Magnetic Resonance Imaging of the Whole Body*, 4th edition. St. Louis: Mosby 2002; 619-662.
2. Nour SG, Lewin JS. MRI-Guided and Monitored Radiofrequency Interstitial Thermal Cancer Ablation. In: Ellis L, Tanabe K, Curley S (eds): *Radiofrequency Ablation of Cancer*. New York: Springer; 2004; 269-296.
3. Nour SG and Lewin JS. Parapharyngeal and Masticator Spaces. In: Valvassori GE, Mafee MF, Carter BL, eds. *Imaging of the head and neck*. Stuttgart: Thieme. In press.
4. Lewin JS, Wendt M, Nour SG. Interventional MR Imaging for Device Placement. In: R Latchaw (ed): *MR and CT Imaging of the Head, Neck, and Spine*, 3rd edition. Mosby. In press.
5. Nour SG. Adrenal Glands. In: Strang J and Dogra V(eds): *Body CT Secrets*. Elsevier; in press
6. Nour SG. Aorta, Abdominal and Pelvic arteries. In: Strang J and Dogra V(eds): *Body CT Secrets*. Elsevier; in press

C. Research Support. List selected ongoing or completed (during the last three years) research projects (federal and non-federal support). Begin with the projects that are most relevant to the research proposed in this application. Briefly indicate the overall goals of the projects and your role (e.g. PI, Co-Investigator, Consultant) in the research project. Do not list award amounts or percent effort in projects.

ACTIVE

5R01 EB01052-02 (Saidel, PI) 09/30/02-08/31/06 5%
NIH \$250,000

Thermal Model to Guide Tumor Ablation by RF Heating with MRI Monitoring

This project will analyze the dynamic changes of the three-dimensional (3-D) temperature field in tissue surrounding the RF heating probe during ablation to assist clinical evaluation and decision-making during the therapeutic procedure to kill tumor cells with minimal damage to normal cells.

Role: Co-Investigator

1R01 EB004070-01 (Wilson, PI) 07/01/04-06/30/08 5%
NIH \$225,000

Quantitative Image Quality for Optimization of MRI

Goals: To quantitatively assess image quality in magnetic resonance imaging (MRI) and use it to evaluate and optimize the almost unlimited number of ways to acquire and reconstruct an image with a focus on important variables in fast MR imaging, including those associated with acquisition sampling and reconstruction. As done in x-ray and nuclear imaging, we will use human observer and model detection of isolated pathologies to assess image quality. As a second, and probably more useful, method for evaluating image quality in fast MR, we will use a perceptual difference computer model (PDM) developed in our laboratory that determines the visual difference between a high quality reference image and a more quickly obtained, but possibly degraded, MR image. We hypothesize that these two quantitative image quality approaches will be useful for assessing and optimizing MR images.

Role: Co-Investigator

PENDING

None