

Samson Munn, M.D., FACR

Quality and Group Process in Clinical and Academic Radiology

Curriculum Vitae

27 November 2018

Note:

My experience in group process – how groups (including radiologists or other physicians, residents, medical students, etc.) work well together, why (or why not), how this influences quality and productivity, etc. – stems originally from work begun in 1992 in intensive group dialogue settings related to genocide or similarly horrid, group behavior. To the extent that this expertise informs my roles and functioning in radiology and other hospital settings, only selected elements are included herein. So as not to be distracting, such entries are found toward the end (pages 16–22).

PERSONAL HISTORY

Legal name: Samson Munn

Full legal name: Charles Samson Munn

Contact data: Chair, Department of Radiology

Harbor-UCLA Medical Center

1000 West Carson Street, 2nd floor, 2W34A, box 27

Torrance CA 90509

Harbor-UCLA telephone number: 310.222.6594 Harbor-UCLA facsimile number: 310.212.0049 Cellular telephone number: 617.775.3147

smunn@dhs.lacounty.gov

Place of birth: New York, New York, U.S.A.

Citizenship: U.S.A., Germany, Poland and Israel. (German citizenship granted on

the basis of special importance to the nation of Germany.)

Foreign languages: German: Zertifikat, Deutsche als Fremdsprache [Certificate, German

as a Foreign Language] # PH332609, May 1998

Yiddish: some spoken and reading ability, better aural understanding

EDUCATION

1978 M.D. Boston University School of Medicine
 1973 A.B. (psychology) University of California, Berkeley

TRAINING

Fellowship / Chief Residency (combined) (PGY 5)

July 1982 – June 1983 Imaging Boston V. A. Medical Center

(Mentors: Drs. Robert Pugatch, Stephen

Gerzof and Elon Gale)

Residency (PGY 2-4)

July 1979 – June 1982 Radiology Tufts / New England Medical Center /

Boston V. A. Medical Center

(combined program)

Internship (PGY 1)

July 1978 – June 1979 Internal Medicine Boston City Hospital (merged with

University Hospital later to become

Boston Medical Center)

Laboratory Assistant

Mid 1973 – Mid 1974 Immunology Department of Pathology

Boston University School of Medicine (Working in the laboratory of Drs. Michael Bennett & Vinay Kumar)

LICENSURE/REGISTRATION AS A PHYSICIAN

Massachusetts active/current California active/current New York active/current New Mexico active/current Arizona active/current Georgia active/current Nevada active/current Texas active/current

National Board of Medical Examiners passed (lifelong)

SPEX (FSMB) passed (6 November 2011)

BOARD CERTIFICATION / REGISTRATION AS A RADIOLOGIST

American Board of Radiology Diagnostic Radiology 4 June 1982

Royal College of Radiologists and General Clinical Radiology

Medical Council (England/UK) Registry

C. C

16 August 2010

B Reader CFR 42, Part 37.51 Feb. 2010 – Jan. 2014

Centers for Disease Control (allowed passively to expire)

National Institute for Occupational Safety and Health

Public Health Service

U. S. Department of Health and Human Services

ACADEMIC APPOINTMENTS

PRESENT:

Current and ongoing:

Vice Chair, Department of Radiology, David Geffen School of Medicine, University of California, Los Angeles. (Current term: July 2018 – June 2019.)

July 2016 – current:

Clinical Professor of Radiology, David Geffen School of Medicine, University of California, Los Angeles.

February 2016 – current:

Adjunct Associate Professor, School of Medicine, Tufts University

RECENT AND PRIOR:

February 2009 – ~ January 2016:

Associate Professor (academic track), School of Medicine, Tufts University.

April 2004 – January 2009:

Lecturer School of Medicine, Tufts University. (Converted from *Assistant Professor* to *Lecturer* due to 2004–2008, out-of-Massachusetts residence.)

October 1986 – March 2004:

Assistant Professor (academic track), School of Medicine, Tufts University.

July 1982 – September 1986:

Instructor (academic track), School of Medicine, Tufts University

HOSPITAL APPOINTMENTS

PRESENT (starting February 2016):

Chair, Department of Radiology, Harbor-UCLA Medical Center

Co-Chair, CLARION, County Leaders Aligning Radiology Integration, Organization and Networking. Conceived CLARION, its goals and purposes, etc., and was immediately appointed Co-Chair by the overall Chief Medical Officer of Los Angeles County, Dr. Hal Yee. (There is one other Co-Chair, from one of the smaller County hospitals. There is no Chair, per se.) Los Angeles County's hospital network comprises six hospitals, the largest being LAC-USC Medical Center (at ~ 600 beds), and the second largest being LAC-Harbor-UCLA Medical Center (at ~ 500 beds). The goal of CLARION is integration of all the Departments of Radiology, so that they function as a network helpful to each other, akin to one huge Department with multiple sites, rather than simply as independent Departments of Radiology. Other County-wide radiology committees fall directly or indirectly under the umbrella of CLARION, including the Medical Imaging Equipment Value Analysis Committee (with a budget of \$10 million per year), the Breast Imaging Steering Committee, and so on.

RECENT AND PRIOR:

June 2008 – January 2016: Department of Radiology, Tufts Medical Center: *Vice Chair* (Associate Radiologist-in-Chief) for Quality and Core Operations

July 2012 – January 2016: Division Chief, Thoracoabdominal Imaging

September 2011 – June 2012: Division Chief, Thoracic Imaging

July 1997 – March 2004 and June 2008 – January 2016: Staff Radiologist

January and February 2002: Division Chief of Nuclear Medicine (Interim)

December 2008 – January 2016: Department of Radiology, Lemuel Shattuck Hospital: Staff Radiologist

May 2004 – June 2008: Department of Medical Imaging, Kaiser–Permanente Medical Center (Santa Rosa, Sonoma County, California)

Chief, Department of Medical Imaging, May 2004 – July 2007

Radiation Safety Officer, most of 2004 – 2007

Division Chief, Mammography, May 2004 – April 2008

Staff Radiologist

July 1997 – April 2004: Department of Radiology, Lemuel Shattuck Hospital

Chief, Department of Radiology, September 1998 – March 2004

Radiation Safety Officer

Staff Radiologist

July 2002 – July 2003 (hospital closing date): Department of Radiology, Waltham Hospital

Chief, Department of Radiology

Staff Radiologist

July 1983 – May 1997: Department of Radiology, New England Baptist Hospital

Division Chief, Nuclear Medicine

Radiation Safety Officer

Staff Radiologist

MEDICAL STAFF LEADERSHIP ROLES

Vice President, Medical Staff, Tufts Medical Center (Boston, Massachusetts) January 2014 – December 2015

President, Medical Staff, Tufts Medical Center (Boston, Massachusetts)

January 2010 – December 2011

President, Medical Staff, Kaiser-Permanente Medical Center (Santa Rosa, California) July 2007 – June 2008

President, Medical Staff, Lemuel Shattuck Hospital (Boston, Massachusetts) April 2000 – April 2004 (two terms)

Vice President, Medical Staff, Lemuel Shattuck Hospital (Boston, Massachusetts) April 1998 – March 2000

HOSPITAL, MEDICAL SCHOOL, OR UNIVERSITY COMMITTEE ASSIGNMENTS

Tufts Medical Center (earlier called *New England Medical Center*)

Chair, Credentials Committee (1 January 2010 – 31 December 2012)

Quality of Care Committee (February 2009 – January 2016)

Institutional Review Board (February 2009 – January 2010)

Credentials Committee (July 2008 – January 2016)

Radiation Safety Committee (Summer 2008 – January 2016)

Kaiser–Permanente Medical Center (Santa Rosa, Sonoma County, California) Chair, Imaging Utilization Committee (January 2005 – June 2008)

New England Medical Center (later called *Tufts Medical Center*)
Radiation Safety Committee (~ 2002 – ~ 2004)

Lemuel Shattuck Hospital

Chair, Medical Executive Committee (April 2000 – April 2004) Chair, Radiation Safety Committee (July 1997 – April 2004)

New England Baptist Hospital

Member, Cancer Committee ($\sim 1990 - \sim 1997$)

Member, Radiation Safety Committee (~ 1989 – ~ 1997)

Moderator, Thoracic Conference (~ 1990 – ~ 1997)

Radiation Safety Officer ($\sim 1989 - \sim 1997$)

Boston University Medical Center

Medical student member of the Human Studies Committee for one year (~ 1977) (the second B.U. medical student ever to serve on the Committee)

OTHER MAJOR COMMITTEE ASSIGNMENTS See also *OFFICE AND COMMITTEE ASSIGNMENTS IN PROFESSIONAL SOCIETIES*, below.

Inter-Regional

As *Chair (Imaging)* of the northern California *Kaiser–Permanente* **Breast Care Task Force** (see below), became appointed one of two representatives of *Kaiser–*

Permanente's largest region (northern California) to the Permanente Federation's Interregional Breast Care Leaders (early 2007 through May 2008). A multidisciplinary team of clinicians from all Kaiser–Permanente regions (from Hawaii to Maryland, and from Colorado to Washington State), the IRBCL works to improve quality of care in screening for and diagnosis of patients with breast cancer nation-wide, toward reducing mortality and improving screening and diagnostic measures in terms of effectiveness and patient experience. Northern California came to excel in several metrics nationally within Kaiser–Permanente with respect to breast diagnosis, most of which occurred under the aegis of the Breast Care Task Force.

Regional

Background: During the period below, Kaiser-Permanente cared for 4 million people or more in northern California – about one-third of the insured market regionally and 46% of those insured in Sonoma County. It comprised 18 medical centers, 14–15 of which were equal to or larger than Tufts Medical Center. The region employed 6–7,000 physicians, including approximately 300 radiologists, and 65,000 other employees. Medical centers extended from as far south as San Jose to Santa Rosa in the north, and from as far east as Sacramento to the Pacific coast, including such populous areas as San Francisco, Oakland, Sacramento, Fremont, Richmond and San Rafael. Being large and an HMO in which physicians were employed in a model of joint responsibility for patients, imaging and order-entry were naturally vastly more streamlined and algorithmic in nature than is typical in the fee-for-service and academic sectors.

Appointed to the following five regional roles by northern California, Kaiser–Permanente headquarters:

Chair (Imaging), regional Kaiser–Permanente Breast Care Task Force (November 2006 – June 2008) (caring for over 1½ million women). Jointly with the other Chair (Surgery), responsible primarily for assuring prompt access to breast biopsy, fast turnaround of diagnostic breast imaging reporting, reporting of mammography quality data, communication with patients, breast diagnosis best practices, etc.

By virtue of the above role, became **Interim Chair** (through early June 2008, when I left *Kaiser Permanente*) of the regional **Mammography Chiefs' Committee**. Composed of the Chiefs of the mammography sections of the ~ 18 local medical centers' Departments of Radiology. This was a venue to pool knowledge, planning and effort toward best practices; it was primarily operational. (Member of the Committee: May 2004 – April 2008.)

Member of the Executive Sub-Committee of the regional Imaging Utilization Committee (June 2005 – June 2008). This group of six (three of whom were radiologists) determined or oversaw determination of all imaging algorithms applied regionally in northern California *Kaiser–Permanente*, and then implemented them throughout the medical centers.

Personally responsible regarding:

- the carotid ultrasonography regional utilization algorithm;
- one of two regionally promulgated computerized order-entry paths for that exam;

- the upper GI regional utilization algorithm (leading to a drastic reduction in the ordering of that exam regionally, and nearly to its elimination at several medical centers);
- near elimination of intravenous urography at multiple medical centers in favor of better imaging modality choices; and,
- early data collection and analysis of utilization of head CTs engendered in the Emergency Department, with consequent utilization recommendations.

Working with just a few others, jointly responsible for similar northern California regional utilization algorithmic design and analysis regarding:

- abdomen CT;
- CT pulmonary angiography;
- lumbar spine MRI;
- knee MRI;
- shoulder MRI; and,
- abdomen ultrasonography.

Member of the regional **Medical Imaging Chiefs' Committee** (May 2004 – July 2007). This committee dealt with radiology personnel issues, Joint Commission matters, policies and procedures, best practices, long range planning, etc.

Member of the regional **Medical Imaging Technology Committee** (May 2004 – December 2006). This committee was responsible for all radiology equipment choices and purchases from PACS systems to MRI-guided biopsy needles to ultrasound machinery, the distribution of all radiology equipment throughout the 18 medical centers, and all related budgeting.

Local

Member of the regional **Mammography Chiefs' Committee**, May 2004 – April 2008.

TEACHING

On the faculty of the Department of Radiology of Tufts University School of Medicine continually for the past >30 years, having the honor, pleasure and privilege to teach:

medical students at Tufts Medical Center (formerly New England Medical Center) and at Lemuel Shattuck Hospital (where there was a Tufts radiology elective under my aegis); my teaching tended to be more didactic, and was scheduled at an approximate average of one lecture every 2-3 months or so at NEMC, and much more often at Lemuel Shattuck Hospital, during the years of 1983 – 2004; and approximately one formal hour-long session per month at Tufts Medical Center June 2008 – January 2016;

radiology residents at Tufts Medical Center (formerly *New England Medical Center*), the Boston VA Medical Center (then a major Tufts Medical School affiliate), and at New England Baptist Hospital (then a significant Tufts Medical School affiliate, primarily in orthopedics and radiology); such interaction was approximately 10% of my time during the period of about 1983 – 1990, approximately twice monthly during 1991 – 1996, and

essentially half of my four weekly clinical days during the 1997 – 2004 period and again June 2008 – January 2016; and,

fellows (primarily in CT) at NEMC / Tufts Medical Center and the Boston VA Medical Center; this service was greater in the 1980s at the VA, and greater in the 1990s at Tufts-NEMC, amounting to approximately a day each 2–3 weeks. Neither of the Tufts Medical Center (then NEMC) nor VA CT/imaging fellowships still exists.

Please note that the Radiology Departments of the Boston VAMC, of New England Baptist Hospital and of Lemuel Shattuck were affiliated importantly with Tufts/NEMC during those years; the Shattuck's and Baptist's Radiology Departments remain affiliated currently. This teaching service has always included formal lectures, impromptu clinically sparked teaching, and detail-oriented clinical teaching in the course of interpreting cases.

Finally, from a teaching standpoint, fortunate to have a rich, personal radiology teaching collection on which to base discussion and lecture, garnered from over 30 years of collecting, combined with inheriting:

- inheriting the large Radiology Department teaching collection of Waltham Hospital upon its close in 2003 (with permission); and,
- receiving cases very kindly gifted to me from Drs. Alice Ettinger and Susan Goldstein. The former was a sterling radiologist, mentor and teacher of international renown, formerly Radiologist-in-Chief at Tufts-NEMC and Professor and Chair of Radiology at Tufts Medical School; the latter was the caring, hard-working Chief of Radiology at Lemuel Shattuck Hospital for many years, immediately preceding my tenure as Chief of Radiology (1998).

OFFICE AND COMMITTEE ASSIGNMENTS IN PROFESSIONAL SOCIETIES

American College of Radiology and American Registry of Radiologic Technologists: ACR-representative to and member of the CT Examination Committee of the ARRT, 2003–2008. Honored to have been appointed by the ACR for this assignment at the ARRT, which was later extended a year beyond the usual five. The involvement was to travel to Minneapolis twice yearly for 3 days, sitting on a committee at the headquarters of the ARRT composed of a psychometrician, a radiation physicist, clinical CT technologists, teaching CT technologists, an ARRT administrator, and a CT radiologist (myself), in order to compose scientifically and assiduously the Registry's certifying examinations for technologists to attempt to qualify for CT certification. This involved painstaking review and re-review of wording and statistics of thousands of questions and answers regarding CT anatomy, physics, radiation safety, imaging pathology, contrast media, consent and other medico-legal matters, and imaging techniques.

American College of Radiology: Reviewer for the Computed Tomography (CT) Accreditation Program, 2002–2004. A reviewer has the honor and responsibility to review, evaluate and pass or fail techniques and sample images from sites around the country attempting to gain accreditation from the ACR in computed tomography (CT). Received case documents and images from 2–3 applicant sites most weeks during those 2–3 years, and submitted a written report of each.

Accreditation Program, 2002–2004. A reviewer has the honor and responsibility to review, evaluate and pass or fail techniques and sample images from sites around the country attempting to gain accreditation from the ACR in radiography and fluoroscopy. I received case documents and images from 1–2 applicant sites most weeks during those 2–3 years, and submitted a written report of each.

CONSULTANCY

Advisory Board, *Carestream Health* (an <u>un</u>compensated, voluntary, industry position); 2010–2015.

Expert Reviewer, Medical Board of California; current term 1 March 2018 – 28 February 2021; diagnostic radiology (including medical ethics).

PROFESSIONAL SOCIETAL MEMBERSHIPS (past and/or present)

European Society of Radiology
American Society of Nuclear Cardiology
Radiological Society of North America
American College of Radiology
American Roentgen Ray Society
New England Roentgen Ray Society
Association of University Radiologists
Los Angeles Radiological Society
California Radiological Society
Massachusetts Medical Society
Massachusetts Radiological Society
American Society of Law, Medicine and Ethics
Society of Breast Imaging

HONORS AND SPECIAL AWARDS

Awarded the *Fellow of the American College of Radiology* (FACR) degree 15 May 2011 in Washington, D.C., at the annual meeting of the American College of Radiology (ACR), after nomination had been made by the Massachusetts Radiological Society (the Massachusetts chapter of the ACR). The FACR degree is conferred by the ACR in recognition of documented and confirmed, significant service to the profession. The FACR degree is granted to only ~12% of board-certified radiologists.

SALIENT CONTRIBUTIONS TO MEDICAL IMAGING

1. <u>Correction and Establishment of Normal Ovary Volume of Women in Their 20s – Mid 40s by Ultrasound</u>

Prior to 1985, all authorities, all reference texts, and all other imaging literature provided 6.0 cm³ as the upper limit of normal for ovary volume by ultrasound. Unfortunately, ovary "enlargement" was theretofore a common over-diagnosis ultrasonographically.

A 1985 paper by Nicolini *et al* in *Journal of Ultrasound in Medicine* reported an average volume of 10.0 ± 3.9 cm³. Munn was unaware of that article, independently noticing what appeared to be too many women in his own practice with what then required reporting as abnormally large ovaries.

A brief paper by Munn *et al* in *Radiology* (see below), considering just 28 ovaries from 15 healthy women aged 18–47, corrected the previously universally held erroneous value. Munn *et al* reported an *average* of 6.5 cm³ and provided possible explanations for the higher, incorrect value found by Nicolini *et al*.

Munn *et al* also set the historical record straight. Most if not all references prior to 1985 led eventually back to a mistaken abstraction in a 1977 article by Sample *et al* in *Radiology*, based on gross specimen measurements of girls' ovaries in a 1932 article by Simkins in *American Journal of Anatomy*. Munn *et al* identified the error and recalculated the specimen data that had been cited by Sample *et al* from 1932 regarding the four ovaries from four women aged 26–29, arriving at an average of 5.95 cm³, quite close to the value reported by Munn *et al*.

Four years later, Munn's follow-up data (reported by Baltarowich in *Atlas of Ultrasound Measurements*, Year Book Medical Publishers, 1990) yielded a mean volume of 7.0 ± 4.2 cm³, with a range of 1.4–24.4 cm³. (Also, the value of Nicolini was rejected by Baltarowich on technical grounds.) It was at that point that the prevailing literature value of normal ovary volume shifted from the previously thought *upper limit* of 6 cm³ to an *average* of 7 cm³.

In 1990, Cohen *et al* reported in *Radiology* a mean of 9.8 ± 5.8 cm³ based on 866 ovaries of women who were of the menstruating age, in line with the data of Nicolini *et al*. However, in 2000, Pavlik *et al* reported in *Gynecologic Oncology* means of 6.8 cm³ in women 25-30, 6.1 in women in their 30s, and 4.8 cm³ in women in their 40s (some of whom may have been post-menopausal); the study was based on almost 14,000 women aged 25-91. The work of Cohen *et al* also broke determinations up by decade of life, but each of the decade average volumes determined by Pavlik *et al* was lower than the corresponding one by Cohen *et al*.

Pavlik *et al* proposed an upper limit of normal of 20 cm³ in women of the fertile years, reportedly being 2 SDs above the mean. However, that proposal was in error mathematically; recalculating their own reported data actually yields *2-SDs-above-the-mean* values of 14.6 cm³ 25–29 years of age, 13 cm³ in the 30s and 10.8 cm³ in the 40s (see Munn's letter in *Gynecologic Oncology* 2008). However, Nicolini *et al*'s three highest normal values were around 18, and Munn's two highest normal values were over 20! In addition, ovaries may often normally be of very greatly differing volume from side to side. Thus, the upper end of normal is much higher than had previously been appreciated.

In summary, Pavlik *et al* confirmed the original mean value of Munn *et al* and his follow-up mean. Although the work of Cohen *et al* confirmed (more or less) the earlier data of Nicolini *et al*, the latter was rejected by Baltarowich, and the impressive fifty-fold greater

number of ovaries studied by Pavlik *et al* and their lower standard deviation strongly favor their work over that of Cohen *et al*. In turn, the work of Pavlik *et al* confirms the original report of Munn *et al*, with essentially the same mean value.

The mean value of 7.0 cm³ has been recommended for clinical use (*Atlas of Ultrasound Measurements*, 1990) and appears to be useful in ultrasound examinations of ovaries of women in their 20s to mid 40s, with no superior value published since.

For instance, a normative model was published in 2013 of ovary volume based on age, from authors at St. Andrews, Edinburgh and Copenhagen [Kelsey TW, Dodwell SK, Wilkinson AG *et al* (2013) Ovarian Volume throughout Life: A Validated Normative Model. PLoS ONE 8(9): e71465 (doi:10.1371/journal.pone.0071465)]. They considered data from many sources, and found an average of 7.7 cm³ at 20 years of age, 6.0 cm³ at 30 years of age, and ~ 5.6 cm³ at 40 years of age, once again confirming the mean values of 6.5–7 first reported by Munn *et al* in 1986 and by Munn (via Baltarowich) in 1990, and with a few normal ovaries >18 cm³.

2. <u>Discovery and Demonstration that the Common and Well Known, Inferior, So-Called</u>
"<u>Diaphragmatic</u>" Attenuation Artifact in Myocardial Nuclear Medicine Scanning is Actually
Gastric, and Can Be Prevented

In nuclear medicine cardiac imaging, a well-known artifactual defect is inferior wall (left ventricular) attenuation. It is particularly common and can cause falsely positive diagnoses of inferior infarction and/or ischemia by suggesting a genuine defect. The defect can also obscure a genuine, underlying defect, causing a falsely negative interpretation if the defect is too easily ascribed entirely to artifact.

Its cause had long been vexing. The historically held view – always only theory – was that radioactivity is attenuated (blocked) by dense, muscular tissue of the diaphragm adjacent to inferior left ventricular wall, thus not reaching the nuclear medicine camera, and thus not imaged. This view was so pervasive that the defect has often been called *diaphragmatic* attenuation artifact.

Munn's article in *European Journal of Radiology* (2004; see below) completely changed understanding of the underlying mechanism. It demonstrated that the defect is not in fact caused by the diaphragm, but rather by the nearby stomach wall. This explanation was based on gravity, CT imaging and anatomy. Orally administered effervescent granules demonstrated marked thinning of the stomach wall by CT, and moderate or marked lessening of the artifact in patients undergoing myocardial scanning. In addition, knowledge of CT anatomy would indicate that the diaphragm adjacent to inferior left ventricular wall is simply too thin to present any significant barrier to transmission of radioactivity from myocardium. This greater understanding also explained why various different maneuvers reported previously by others also helped to diminish the artifact (albeit to lesser degree).

The imaging technique reported by Munn (i.e., utilization of effervescent crystals, carbonated beverages, etc.) was patented in the U.S. and Europe. Enhanced throughtransmission of radioactivity is due in part to gastric wall thinning and in part to enhanced transmission through gas (relative to that through soft tissue or gastric contents). An additional benefit is lessening of artifact by extra-cardiac activity (such as by bowel or left lobe of liver). These benefits also apply to cardiac radiotracer imaging other than

RESEARCH PAPERS (Peer Reviewed)

- 1. Epler, G.R., McLoud, T.C., Munn, C.S., and Colby, T.V. Pleural lipoma: diagnosis by computed tomography. Chest 1986;90:265–268.
- 2. Munn, C.S., Kiser, L.C., Wetzner, S.M., and Baer, J.E. Ovary volume in young and premenopausal adults: US determination. Radiology 1986;159(3):731–2.
- 3. Tyagi, G., Munn, C.S., Kiser, L.C., et al. Case report: malignant mesothelioma of the tunica vaginalis testis. Urology 1989;34(2):102–104.
- 4. Munn, S. Pseudoazygos lobe caused by lymph node pneumatocele. Journal of Thoracic Imaging 2002;17(4):310–313.
- 5. Rencus, T., Smith, J., Munn, S., and Elgazzar, A. Displaced uterus simulating aneurysm on a multiphase bone scan. Clinical Nuclear Medicine 2003;28(7):574–576.
- 6. Szot, A., Jacobson, F.L., Munn, S., et al. Diagnostic accuracy of chest X-rays acquired using a digital camera for low-cost teleradiology. International Journal of Medical Informatics 2004;73:65–73.
- 7. Munn, S. The way to a man's heart is through his stomach: much "diaphragmatic" attenuation is likely gastric, and effervescent granules enhance cardiac imaging. European Journal of Radiology 2004;52(3):271–5. (Erratum: European Journal of Radiology 2005;54(2):316.)
- 8. Fields, J., Alturkistani, T., Kumar, N., Kanuri, A., Salem, D., Munn, S., and Blazey-Martin, D. Prevalence and Cost of Imaging in Inpatient Falls: The Rising Cost of Falling. ClinicoEconomics and Outcomes Research 2015;7:281–286.

LETTERS TO THE EDITOR

- 1. Munn, S. *Doc, I don't wanna know!*: patient-requested noninformed consent. American Journal of Roentgenology 2001;177(2):473.
- 2. Munn, S. Re: Value of ECG-gated thallium-201 dipyridamole SPECT in borderline cases of myocardial perfusion scan. Acta Cardiologica Sinica 2006;22:117.
- 3. Munn, S. Ovary volume: a reconsideration of "Ovary volume related to age." Gynecologic Oncology 2008;109:146.
- 4. Munn, S. Understandable and not surprising. Journal of Nuclear Cardiology 2013;20(1):166. [In response to Hara M *et al*, Reduction of infracardiac intestinal activity by a small amount of soda water in technetium-99m tetrofosmin myocardial perfusion scintigraphy with adenosine stress. Journal of Nuclear Cardiology 2008;15:241-245.]

- 5. Munn, S. Author's reply (in response to When Reporting Adverse Events, Less = More). Journal of the American College of Radiology 2016;13(2):120.
- 6. Munn, S. And let us not forget Alice Ettinger! Journal of the American College of Radiology 2018;15(8):1065–1066.

REVIEWS

- 1. Pugatch, R.D., Munn, C.S., and Faling, J. Computed tomography of the lung, pleura, and chest wall. Clinics in Chest Medicine 1984;5(2):265–280.
- 2. Newberg, A.H., Munn, C.S., and Robbins, A.H. Complications of arthrography. Radiology 1985;155:605–606.
- 3. Munn, S. Imaging HIV/AIDS: Burkitt's lymphoma. AIDS Patient Care and STDs 2002;16(8):395–399.
- 4. Oza, U.D., and Munn, S. Imaging HIV/AIDS: body cavity-based lymphoma. AIDS Patient Care and STDs 2003;17(3):129–132.

EDITORIALS

- 1. Munn, S. Opinion: when should men undergo mammography? American Journal of Roentgenology 2002;178:1419–1420.
- 2. Munn, S. Special consent for mammography in women with breast implants? Plastic and Reconstructive Surgery 2010;125(4):167e–168e.
- 3. Munn, S. The Jury and Standard of Care: *Proper or Perfect?* Journal of the American College of Radiology 2010;7(5):322–324.

ABSTRACTS

- 1. Eastcott J.W., Bennett M., Munn C., Broitman S.A. Differential growth of allogeneic lymphocytes and bone marrow cells in irradiated NZB mice. Federation Proceedings 1977(1 March);36(3):1225.
- 2. Wetzner, S.M., Kiser, L.C., and Munn, C.S. Duplex imaging: new diagnostic applications. Radiology (supplement) 1983;149(P):72.
- 3. Oza, U.D., and Munn, C.S. Pictorial review of common and uncommon radiological manifestations in AIDS. Radiology (supplement) 2001;221(P):684.

BRIEF CONTRIBUTIONS

- 1. Munn, S. Speaking of Language: Inadvertent ≠ Accidental. Journal of the American College of Radiology 2015;12(5):897.
- 2. Munn, S. Speaking of Language: There Is No Such Thing as a "Mid Pole." Journal of the American College of Radiology 2015;12(7):656.
- 3. Munn, S. Speaking of Language: An Aspect of Radiology Worth Considering. Journal of the American College of Radiology 2016;13(2) 123.

PUBLISHED PATENTS

- 1. Munn, C.S., and Cohen, R.E. Rubber products that shrink due to the application of energy and hypo-allergenic rubbery products. United States Patent and Trademark Office: 24 April 2001; patent # 6,221,447.
- 2. Munn, C.S., and Cohen, R.E. Rubbery products that shrink due to the application of energy and hypo-allergenic rubbery products. United States Patent and Trademark Office: 20 September 2005; patent # 6,946,172.
- 3. Munn, C.S. Enhanced cardiac radionuclide imaging techniques. United States Patent and Trademark Office: 28 April 2009; patent # 7,526,331.
- 4. Multiple patents related to hypo-allergenic rubbery products (such as catheters and surgical gloves) issued in several European countries; for instance, German patent # 297 17 772.9. (Full list available on request.)

PENDING PATENT

Munn, C.S. Method and system for evaluating the performance of a reader of screening mammograms. United States Patent and Trademark Office: 4 June 2018; application # 15997142, electronic filing system ID # 32797852.

WEBINARS

- 1. Munn, S., and Rencic, J. (March 9, 2010). *Outpatient Abdominal Imaging: Timing and Techniques for Diagnosis*. Jointly sponsored by Tufts University School of Medicine, Tufts Health Care Institute, and *MedSolutions*. See http://www.thci.org/medsolutions/Details.aspx?activityid=072ea31b-5fca-489f-912b-655e137fe6fa, last accessed 6 January 2012.
- 2. Munn, S., and Carroll, N. (November 2, 2010). *Doing the Right Thing: Diagnostic Radiology, Radiation Risk and Patient Safety*. Jointly sponsored by Tufts University School of Medicine, Tufts Health Care Institute, and *MedSolutions*. See http://www.thci.org/medsolutions/Details.aspx?activityid=7c7e8581-cd88-4110-9b21-4bb2f3ebb6ec, last accessed 6 January 2012.

GROUP PROCESS: SELECTED EXPERIENCE

(see *note* on page 1)

INTENSIVE, GROUP DIALOGUE EXPERIENCE

To Reflect and Trust 1992–2008. Participant in a small, international group of thoughtful, motivated people who originally were personally related to the Holocaust through their parents' and grandparents' victimization, perpetration, or related involvements by Germans and/or in Germany: sons and daughters of Holocaust victims meeting primarily with daughters and sons of Holocaust perpetrators. Later, grant funding engendered the group's growth to include participants from South Africa, from Palestine and Israel, and from Northern Ireland. Co-lead project's expansion to include Northern Ireland.

The Austrian Encounter 1995—current. Founder and long-term facilitator of a small, international group of thoughtful, motivated people who are personally related to the Austrian element of the Holocaust through their parents' and grandparents' victimization, perpetration, or related involvements: sons and daughters of Holocaust victims meeting with daughters and sons of Holocaust perpetrators, somehow connected to Austria.

Facilitation. Facilitator or co-facilitator of a number of meetings, sessions and encounters in Germany, Northern Ireland, Palestine, England and Austria, since 1995. One example was *Towards Understanding and Healing*, November 2000 and 2001, in Lusty Beg, Enniskillen, Northern Ireland. Groups of ~ 28 and ~ 36 (respectively) Northern Irish and British men and women whose personal and family histories were directly involved in or poignantly impacted by *The Troubles*. The group included former Catholic, Nationalist and Protestant, Unionist paramilitaries and British army personnel, perpetrators and/or victims, as well as close family members.

Boston Jewish-German Dialogue Participant 1994-1996.

Our Dialogue Participant 1998 (U.S.A.) and 1999 (in the Alps).

CONSULTANCY / COMMUNITY / OTHER LEADERSHIP ROLES

Consultant to groups internationally that engage interpersonal, group dialogue related to terrible, human, group behavior, such as genocide; 1995–[current]

Executive Committee, *Friends of New England Holocaust Memorial*, 2001–2011 (Note: the Memorial ceased altogether to be an independent entity in 2011.)

CONFERENCE ORGANIZED

The first *International Conference of Jewish—German Intensive Dialogue Groups*. Boston 26–28 July 1996. Conceived by Professor Dan Bar-On, Ph.D. (Ben Gurion University of the Negev). Organized and chaired by Samson Munn, M.D. Thirteen groups from many countries were represented. (Two subsequent such *Conferences* have taken place, in Berlin and in Vienna (organized by others).)

HONORS AND SPECIAL AWARDS

Dr. Munn is currently titled a *Fulbright Specialist* in Peace and Conflict Resolution Studies:

- Approved 27 September 2011 for candidacy to the *Fulbright Specialist* roster by the J. William Fulbright Foreign Scholarship Board, the Bureau of Education and Cultural Affairs of the U.S. Department of State, and the Council for International Exchange of Scholars. This honor generally carries a five-year term; mine was extended to six years (expiring in late September 2017). Fig. The specialization area is Peace and Conflict Resolution Studies. This means that should a foreign university or other organization request a facilitator or group consultant of the Fulbright Commission or of the U.S. State Department, and should Samson Munn be selected from the list of pre-approved *Fulbright Specialist* candidates, he would be eligible and pre-approved for a *Fulbright Specialist* grant.
- Completion of a *Fulbright Specialist* grant in September 2017 in Budapest Hungary. The subject area was contemporary dialogue by descendants of victims with descendants of perpetrators, regarding identity and responsibility in post-Holocaust, post-fascist/Communist Hungary. (This work was done jointly with Professor Júlia Vajda, a sociologist, mathematician and psychologist, head of the Department of Empirical Methods in Social Sciences, Eötvös Loránd University, in Budapest.)

Other Fulbright

• Peer reviewer of applications to the Fulbright Scholarship Board, the Council for International Exchange of Scholars, and the Institute of International Education, for *Fulbright Specialist* grants, all of calendar year 2016.

Other

 Invited participant in Goldner/Weinstein Symposium on the Holocaust and Genocide, 1996–current. An invited, international group of 36 Holocaust or genocide scholars (primarily) who meet every even numbered year in Wroxton (near Oxford), England, in an effort to study and to intervene against racism and genocide based on lessons learned from the Holocaust. Sponsored by Fairleigh Dickinson University, New Jersey, and by private grants.

<u>INVITED LECTURES/PRESENTATIONS/APPEARANCES</u> Too numerous to warrant listing comprehensively; some representative examples include:

Symposium: Escaping the Burden of Silence – *The Austrian Encounter*: 20 Years, Adult Children and Grandchildren of Victims and of Perpetrators of the Shoah/Holocaust in Dialogue An international seminar, 4-8 December 2015 in Vienna, Austria. Attendees were from Austria, Germany, England and the U.S.A. Samson Munn presented twice:

- 4 December: the evening, introductory lecture: Dan Bar-On, the German-Related Encounter Group *To Reflect and Trust* (TRT) and the Beginnings of *The Austrian Encounter* (TAE)
- 5 December: the first morning lecture: **Identity, Responsibility and Being Human:** Subsequent Generations.

Dealing with Nazi Perpetration in Descendants – of Perpetrators and of Nazi Victims – and in Wider Society, 1945 Through Today An international conference, 5-7 December 2013 in Hamburg, Germany, organized by Neuengamme Concentration Camp Memorial; with support of the Research Center for Contemporary History in Hamburg, and of Helmut-Schmidt-University; and, sponsored by the Federal Agency for Political/Civic Education (Germany) and by Friends of the Neuengamme Concentration Camp Memorial. Samson Munn presented thrice:

- 5 December, early evening panel entitled *Toward Dealing with Descendants of Perpetrators*; Samson Munn's presentation is entitled **The Intentions of Dan Bar-On Toward Establishing Dialogue Groups with Descendants of Perpetrators**.
- 6 December, late afternoon panel entitled *Dialogue Groups*; Samson Munn presented (jointly with Dirk Kuhl) the **To Reflect and Trust** dialogue group.
- 6 December, 8 pm evening film event; *Eine unmögliche Freundschaft (An Impossible Friendship)*, discussed subsequently by Dirk Kuhl, Heike Mundzeck and Samson Munn.

The Ghosts of the Third Reich Evening event held at the Museum of Tolerance in New York 22 April 2013, sponsored jointly by the Museum and UJA Federation of New York. The film (see below at bibliography, group process, documentary films) was shown to a private audience of ~ 45 people, followed by a lengthy, panel-type, question and answer discussion period. Present were the film maker (Claudia Sobral) and Samson Munn. The Museum of Tolerance is the educational arm of the Simon Wiesenthal Center.

The Ghosts of the Third Reich Evening event held at the Museum of Tolerance in Los Angeles 23 April 2012, sponsored jointly by the Museum, by Facing History and Ourselves, and by Yeshiva University High Schools of Los Angeles. The film was shown to a public audience of hundreds, followed by a lengthy, panel-type, question and answer discussion period. The two moderators were from Facing History and Ourselves (Jan Darsa and Beth Cohen), and the panel was composed of the film maker (Claudia Sobral), Bernd Wollschlaeger and Samson Munn. The Museum of Tolerance is the educational arm of the Simon Wiesenthal Center.

Responsibility, Identity and Dialogue – Post-Holocaust Keynote address at the 13th Annual Holocaust Memorial Lecture, Keene State College, 27 September 2010, Keene, New Hampshire. Invited by Professor Henry Knight, *Cohen Center for Holocaust and Genocide Studies*.

Power of Dialogue in Social Change Keynote address at the <u>2005 Rev. James E. Coffee Human Rights Awards</u> ceremony, 8 December 2005, Santa Rosa, California. Sponsors: *Sonoma County Commission on Human Rights, Listening for a Change* and *Volunteer Center of Sonoma County*.

Storytelling and Encounter Keynote address at the <u>Storytelling as the Vehicle?</u> conference, 29 November 2005, Antrim, Northern Ireland. Sponsor: *Healing Through Remembering* (Belfast).

The Foundation Trust Keynote address at the 8 February 2001 <u>Racism, Hatred and Reconciliation</u> conference of the *United Nations' NGO Committee on Mental Health*, in New York.

Chaired a panel entitled **Children of Victims and of Perpetrators – Why Work Together?** at the opening day of <u>Remembering for the Future 2000: International Holocaust Survivors' and Second Generation Gathering</u>, 16 July 2000, in London, England.

Presented The Austrian Encounter:

- at the <u>28th Annual Scholars' Conference on the Holocaust and the Churches</u>, March 1998, in Seattle (hosted by University of Washington)
- at the 29th Annual Scholars' Conference on the Holocaust and the Churches, March 1999, in New York (hosted by Nassau Community College); and,
- at the <u>International Conference on Genocide</u>, October 1998, in Sacramento (hosted by California State University).

Second Generation, Post-Holocaust Dialogue Co-presenter of Grand Rounds at the Department of Social Work, *Brigham and Women's Hospital* (Boston), 18 February 1998.

Opposite Sides of a Shared History Keynote address of a 2 June 1996 evening presentation (of the same title) held at the physical venue of the *Royal Geographic Society* (London, England), attended by approximately five hundred members of the public. Sponsors: *Second Generation Trust* (London, England) and *Institut für vergleichende Geschichtswissenschaften* [*Institute for Comparative Historiography*] (Berlin, Germany).

<u>DOCUMENTARY FILMS</u> (neither producer nor writer):

The Ghosts of the Third Reich SD Cinematografica (Rome), © 2010, 2011 and 2012; produced by Claudia Sobral. Focused on descendants of Holocaust perpetrators, this film includes some emphasis on The Austrian Encounter, including Samson Munn (founder and long-time facilitator of the group). 47 minutes. The Italian version has been sold to the History Channel for broadcast in Italy. The English version has been sold to the National Geographic channel for broadcast elsewhere in Europe and in many other countries.

Children of the Third Reich *Timewatch*, *B.B.C.* (London), © 1993; produced by Catrine Clay. Samson Munn was one of four highlighted participants of a group of eighteen: daughters and sons of Holocaust survivors who meet for profound encounters with sons and daughters of German Nazis. 50 minutes. Broadcast nation-wide in the U.K. (several times on the *B.B.C.*), in the U.S. (several times on the *Arts and Entertainment* and *The History Channel* cable-TV networks), and in Holland, Australia, Canada, France, Israel, Turkey and elsewhere.

Eine unmögliche Freundschaft [An Impossible Friendship] *Provobis* (Berlin), © 1998; produced by Michael Richter. Documented the psychological and experiential development of friendship between Samson Munn (the son of two concentration camp survivors) and Dirk Kuhl (the son of the Gestapo commandant of Braunschweig). 48 minutes. Broadcast several times in Germany and Austria.

Out of the Ashes *Timewatch, B.B.C.* (London), © 1995; produced by Catrine Clay. Examined Samson Munn and two others and their relationships with their parents, and has been broadcast nation-wide in the U.K. (several times on the B.B.C.), in the U.S. (several

times on the <u>Arts and Entertainment</u> and <u>The History Channel</u> cable-TV channels), and in Israel, Holland and elsewhere.

Love History *Klub Zwei* © 2010; produced by Simone Bader and Jo Schmeiser. Credited in the film (for having aided the film makers in trying to find interview subjects and for raising awareness of a film screening in Vienna in 2011).

NEWSPAPER INTERVIEWS (not author) – just two amongst many:

L'impensable dialogue: Les mémoires de la Shoah – IV [The Unthinkable Dialogue: The Memories of the Holocaust – IV] *Le Monde* (Paris), 28 April 1995, page 16, by Annick Cojean. Samson Munn was one of five commentators interviewed and quoted in this fullpage article, the fourth in a series in France's most prestigious newspaper.

Anreden gegen die Schweigespirale: Wie Kinder von hohen Nazis und Nachkommen der Holocaust-Opfer in London versuchten, einander zu begegnen [Arguing Against the Spiral of Silence: How Children of Major Nazis and Descendents of Holocaust Victims Sought to Encounter One Another in London] *Süddeutsche Zeitung* (Munich) 4 June 1996, page 3 (a favored, prestigious position in German newspapers), by Birgit Weidinger. Samson Munn was one of three quoted commentators in this article in one of Germany's most respected and widely read newspapers.

RADIO INTERVIEWS (neither producer nor interviewer, but rather subject):

Die Lebendigkeit der Geschichte [The Aliveness of History] *Bayerischer Rundfunk* © November 1999; produced by Nicole Ruchlak. Recorded in Vienna and broadcast from Munich, Samson Munn and a colleague were interviewed about their friendship and about their international work in dialogue.

The Austrian Encounter Deutsche Welle © summer 1997; produced by Silvia Pfeifer. Samson Munn and a couple of the participants in The Austrian Encounter were interviewed in Vienna for an English language program on national German radio. Munn is the founder and facilitator of the Encounter.

Encounter between Children of Survivors and Children of Perpetrators [during a religious affairs program on] *B.B.C. Radio 4* © 1996; 2 June 1996. Samson Munn was one of two people interviewed for about five minutes of air-time in this Sunday morning program broadcast throughout the U.K.

Children of the War Today at One, Blue Danube Radio, Österreichischer Rundfunk (Austrian National Radio, Vienna), 13 March 1995, © 1995; produced by Jane Duke. Samson Munn was interviewed for 11 minutes of air-time by Hal Rock about the creation of The Austrian Encounter, then merely at its beginning, in this Austrian, but English language, radio program.

Second Generation Reconciliation *Outlook, B.B.C.* (London), 10 November 1993, © 1993; produced by Kate Howells. Samson Munn was one of two people interviewed for 7 minutes

of air-time by John Waite in this radio, news magazine program, broadcast throughout the U.K.

CHAPTERS

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- 2. Munn, Samson, *To Reflect and Trust Aims of the Project and My Personal Involvement* [erroneously entitled "'To Reflect and Trust' (TRT). Commitments and aims of the project" in the published version], in Bar-On, Dan, <u>Bridging the Gap: Storytelling as a Way to Work through Political and Collective Hostilities</u> (Hamburg: <u>edition Körber-Stiftung</u>, 2000, ISBN 3-89684-030-4) 28–29.
- 3. Munn, Samson, *Choosing among Special People The Northern Ireland Encounters*, in Bar-On, Dan, <u>Bridging the Gap: Storytelling as a Way to Work through Political and Collective Hostilities</u> (Hamburg: <u>edition Körber-Stiftung</u>, 2000, ISBN 3-89684-030-4) 67–70.
- 4. Munn, Samson, *A Great Deal of Pressure*, in Bar-On, Dan, <u>Bridging the Gap: Storytelling as a Way to Work through Political and Collective Hostilities</u> (Hamburg: <u>edition Körber-Stiftung</u>, 2000, ISBN 3-89684-030-4) 125–126.
- 5. Munn, Samson, *The Austrian Encounter*, in Lappin, Eleonore and Schneider, Bernhard, <u>Die Lebendigkeit der Geschichte. (Dis-)Kontinuitäten in Diskursen über den Nationalsozialismus</u> [The Aliveness of History. (Dis-)Continuations in Discourses Regarding National Socialism] (St. Ingbert: <u>Röhrig Universitätsverlag</u>, 2001, ISBN 3-86110-285-4) 417-437.
- 6. Munn, Samson, *The Austrian Encounter*, in Kimenyi, Alexandre and Scott, Otis, Anatomy of Genocide: State-Sponsored Mass-Killings in the Twentieth Century (New York: Edwin Mellen Press, 2001, ISBN 0-7734-7600-8) 321–337.
- 7. Munn, Samson, *Dialogue Toward a Culture of Peace*, in Storytelling as the Vehicle? (compiled by Gráinne Kelly) (Northern Ireland: Healing Through Remembering, 2006, ISBN 978-1-905882-00-7) 21–36.
- 8. Munn, Samson, *Post-Genocide and Related Dialogue: What Dan Bar-On Began*, in von Wrochem, Oliver and Eckel, Christine, <u>Nationalsozialistische Täterschaftern:</u>

 <u>Nachswirkungen in Gesellschaft und Familie</u> (Berlin: Metropol Verlag 2016, ISBN(13) 978-3-86331-277-0) 257–277.

REVIEW

