

National Council on Radiation Protection and Measurements  
7910 Woodmont Avenue, Suite 800  
Bethesda, Maryland 20814

NCRP/M/93/58

**CURRICULUM VITAE OF CURRENT MEMBER**

Name Adelstein, S(tanley) James

Address Harvard Medical School

25 Shattuck Street                      Boston                      MA                      02115  
Street                                      City                                      State                                      Zip

Birth Date [REDACTED] EXL

Education	Institution	Field of Study	Degree	Year Conferred
	Massachusetts Institute of Tech.	Physical Biology	BS, MS	[REDACTED]
	Harvard University	Medicine	MD	[REDACTED]
	Massachusetts Institute of Tech.	Biophysics	PhD	[REDACTED] EXL

Professional Experience (Two most recent past positions)

Position Title	Organization	Dates
Paul C. Cabot Professor of Medical Biophysics	Harvard Medical School	1939-1978
(Executive) Dean for Academic Programs	Harvard Medical School	1978-

Service on committees, panels, study sections, etc. (of the NCRP and other organizations) NCRP (Vice-President SC-1, 32, 83); IOM (Interdisciplinary Research BioMedical Isotopes); Whitaker Foundation

(Fellowship Advisory Boards)  
Society Affiliations Radiation Research Soc.; Society Nuclear Medicine; American College Nuclear Physicians; Biophysical Society

Honors Aebersold & Blumgart Awards, Soc. Nuclear Medicine; Elected Member IOM; Elected Fellow AAAS.

Publications (Attach list of representative publications) (See Attached)

Areas of interest related to NCRP activities (Select no more than three from enclosed list).

- Nuclear Medicine
- Radiobiology
- Radiation Chemistry

*Portions, EXL  
BLY*

Date 10/05/93

Signature S. J. Adelstein

S. J. Adelstein

S. James Adelstein

Professor

Massachusetts Institute of Technology,  
Cambridge, MA  
Harvard University, Cambridge, MA  
Massachusetts Institute of Technology

B.S., M.S.



Physical Biology

M.D.



Biophysics

Ph.D.



- 1953-1954 Medical House Officer, Peter Bent Brigham Hospital, Boston MA  
1954-1957 Fellow of the National Foundation at the Biophysics Research Laboratory, Peter Bent Brigham Hospital  
1957-1958 Senior Associate Resident Physician and Fellow of the Howard Hughes Medical Institute, Peter Bent Brigham Hospital  
1958-1959 Moseley Traveling Fellow (Harvard) (Radiobiology and Radiation Chemistry), Cambridge University, UK  
1959-1960 Assistant in Medicine, Chief Resident Physician, Peter Bent Brigham Hospital  
1961-1963 Instructor in Anatomy, Harvard Medical School, Boston MA  
1963-1965 Associate in Anatomy, Harvard Medical School  
1963-1968 Associate in Medicine, Peter Bent Brigham Hospital  
1964-1968 Senior Associate in Radiology, Peter Bent Brigham Hospital  
1965-1968 Assistant Professor of Anatomy, Harvard Medical School  
1968-1972 Associate Professor of Radiology, Harvard Medical School  
1968-1992 Director, Division of Nuclear Medicine, Peter Bent Brigham Hospital/Brigham and Women's Hospital  
1970- Director, Joint Program in Nuclear Medicine, Harvard Medical School  
1972-1989 Professor of Radiology, Harvard Medical School  
1978-1990 Dean for Academic Programs, Harvard Medical School  
1989- Paul C. Cabot Professor of Medical Biophysics, Harvard Medical School  
1991- Executive Dean for Academic Programs, Harvard Medical School

### *Honors*

Alpha Omega Alpha; Tau Beta Pi; Sigma Xi; Henry A. and Camillus Christian Fellow, Harvard Medical School, 1959-1960; NIH Career Development Award, 1965-1968; Fogarty Senior International Fellow, USPHS, 1976; Hermann L. Blumgart Pioneer Award, 1983; Elected Member, Institute of Medicine of the National Academy of Sciences, 1985; Paul Aebersold Award in basic nuclear medical science, 1986; Elected Fellow, American Association for the Advancement of Science, 1987

### *Publications* (total of 191)

- Kassis AI, Adelstein SJ, Haydock C, Sastry KSR, McElvany KD, Welch MJ. Lethality of Auger electrons from the decay of bromine-77 in the DNA of mammalian cells. *Radiat Res* 1982; 90:362-373.  
Kassis AI, Sastry KSR, Adelstein SJ. Intracellular distribution and radiotoxicity of chromium-51 in mammalian cells: Auger-electron dosimetry. *J Nucl Med* 1985; 26:59-67.  
Kassis AI, Harris CR, Adelstein SJ, Ruth TJ, Lambrecht R, Wolf AP. The in vitro radiobiology of astatine-211 decay. *Radiat Res* 1986; 105:27-36

- Kassis AI, Sastry KSR, Adelstein SJ. Kinetics of uptake, retention, and radiotoxicity of  $^{125}\text{I}$ UdR in mammalian cells: Implications of localized energy deposition by Auger processes. *Radiat Res* 1987; 109:78-89.
- Kassis AI, Fayad F, Kinsey BM, Sastry KSR, Taube RA, Adelstein SJ. Radiotoxicity of  $^{125}\text{I}$  in mammalian cells. *Radiat Res* 1987; 111:305-318.
- Kinsey BM, Kassis AI, Fayad F, Layne WW, Adelstein SJ. Synthesis and biological studies of iodinated ( $^{127}/^{125}\text{I}$ ) derivatives of rhodamine 123. *J Med Chem* 1987; 30:1757-1761.
- Macklis RM, Kinsey BM, Kassis AI, Ferrara JLM, Atcher RW, Hines JJ, Coleman CN, Adelstein SJ, Burakoff SJ. Radioimmunotherapy with alpha-particle-emitting immunoconjugates. *Science* 1988; 240:1024-1026.
- Kassis AI, Fayad F, Kinsey BM, Sastry KSR, Adelstein SJ. Radiotoxicity of an  $^{125}\text{I}$ -labeled DNA intercalator in mammalian cells. *Radiat Res* 1989; 118:283-294.
- Makrigiorgos GM, Kassis AI, Baranowska-Kortylewicz J, McElvany KD, Welch MJ, Sastry KSR, Adelstein SJ. Radiotoxicity of 5- $^{123}\text{I}$ iodo-2'-deoxyuridine in V79 cells: A comparison with 5- $^{125}\text{I}$ iodo-2'-deoxyuridine. *Radiat Res* 1989; 118:532-544.
- Baranowska-Kortylewicz J, Adelstein SJ, Kassis AI. 5-Iodo-2'-deoxyuridine-protein conjugates: Synthesis and enzymatic degradation. *Select Cancer Ther* 1990; 6:1-13.
- Kassis AI, Makrigiorgos GM, Adelstein SJ. Implications of radiobiological and dosimetric studies of DNA-incorporated  $^{123}\text{I}$ : The use of the Auger effect as a biological probe at the nanometre level. *Radiat Prot Dosim* 1990; 31:333-338.
- Kassis AI, Van den Abbeele AD, Wen PYC, Baranowska-Kortylewicz J, Aaronson RA, DeSisto WC, Lampson LA, Black PMcL, Adelstein SJ. Specific uptake of the Auger electron-emitting thymidine analogue 5- $^{123}\text{I}/^{125}\text{I}$ iodo-2'-deoxyuridine in rat brain tumors: Diagnostic and therapeutic implications in humans. *Cancer Res* 1990; 50:5199-5203.
- Kinsey BM, Fayad F, Venkateshan CN, Adelstein SJ, Kassis AI. Synthesis and biological activity of the intercalating agent 3-acetamido-5- $^{123}\text{I}/^{125}\text{I}$ iodo-6-aminoacridine. *Nucl Med Biol* 1990; 17:341-346.
- Makrigiorgos GM, Adelstein SJ, Kassis AI. Cellular radiation dosimetry and its implications for estimation of radiation risks. Illustrative results with technetium 99m-labeled microspheres and macroaggregates. *JAMA* 1990; 264:592-595.
- Makrigiorgos GM, Ito S, Baranowska-Kortylewicz J, Vinter DW, Iqbal A, Van den Abbeele AD, Adelstein SJ, Kassis AI. Inhomogeneous deposition of radiopharmaceuticals at the cellular level: Experimental evidence and dosimetric implications. *J Nucl Med* 1990; 31:1358-1363.
- Whaley JM, Kassis AI, Kinsey BM, Adelstein SJ, Little JB. Mutation induction by  $^{125}\text{I}$ iodoacetylproflavine, a DNA-intercalating agent, in human cells. *Int J Radiat Biol* 1990; 57:1087-1103.
- Baranowska-Kortylewicz J, Makrigiorgos GM, Van den Abbeele AD, Berman RM, Adelstein SJ, Kassis AI. 5- $^{123}\text{I}$ iodo-2'-deoxyuridine in the radiotherapy of an early ascites tumor model. *Int J Radiat Oncol Biol Phys* 1991; 21:1541-1551.
- Van den Abbeele AD, Aaronson RA, Daher S, Taube RA, Adelstein SJ, Kassis AI. Antigen-binding site protection during radiolabeling leads to a higher immunoreactive fraction. *J Nucl Med* 1991; 32:116-122.
- Kassis AI, Guptill WE, Taube RA, Adelstein SJ. Radiotoxicity of 5- $^{125}\text{I}$ iodo-2'-deoxyuridine in mammalian cells following treatment with 5-fluoro-2'-deoxyuridine. *J Nucl Biol Med* 1991; 35:167-173.
- Makrigiorgos GM, Berman RM, Baranowska-Kortylewicz J, Bump E, Humm J, Adelstein SJ, Kassis AI. DNA damage produced in V79 cells by DNA-incorporated iodine-123: A comparison with iodine-125. *Radiat Res* 1992; 129:309-314.
- Van den Abbeele AD, Baranowska-Kortylewicz J, Adelstein SJ, Carvalho PA, Tutrone RF, Richie JP, Wen PYC, Black PMcL, Mariani G, Kassis AI. Diagnostic and therapeutic applications of Auger-electron-emitting 5- $^{123}\text{I}/^{125}\text{I}$ iodo-2'-deoxyuridine in cancer. In: Howell RW, Narra VR, Sastry KSR, Rao DV, eds. *Biophysical aspects of Auger processes*, AAPM Symposium Series No 8. Woodbury, NY: American Institute of Physics, 1992:372-395.