



# Frontiers in Nuclear Medicine

Edited by

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With 209 Figures and 53 Tables

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## Instead of a Preface

In Zurich at the 7th International Annual Meeting of the Society of Nuclear Medicine in Europe, held in 1969, a group of young scientists from eleven countries dedicated some papers to the memory of Georg von Hevesy. The papers were published in a book entitled "Frontiers of Nuclear Medicine" (Springer-Verlag Berlin, Heidelberg, New York).

On the occasion of the Second International World Congress of Nuclear Medicine and Biology held in 1978 in Washington D.C., under the presidency of Henry N.Wagner, Jr., a group of young scientists again dedicated important papers from the Congress to the memory of Georg von Hevesy. This book consists of these papers, which present new results in the field of Nuclear Medicine reported by physicians, physicists, chemists, engineers, and computer scientists.

The Georg von Hevesy Foundation of Nuclear Medicine in Zurich, Switzerland together with the president of the Second World Congress of Nuclear Medicine, Henry N.Wagner, Jr., have been the major forces in arranging publication of this book.

The Georg von Hevesy Foundation is sponsoring the Hevesy Prize for Nuclear Medicine, the Hevesy Medal, and the Hevesy Memorial Lecture.

W.Horst

# Georg von Hevesy Foundation of Nuclear Medicine

Zurich, Switzerland

## G. v. Hevesy Prize, Medal, Memorial Lecture\*

G.v.Hevesy <i>Prize</i> : H.S.Winchell and N.B.Winstead University of California, Berkeley, USA	1969 in Zurich/Switzerland VIIth International Annual Meeting (President: W.Horst)
G.v.Hevesy <i>Medal and Lecture</i> : Sir E.E.Pochin University of London, GB	1970 in Hannover/Germany VIIIth International Annual Meeting (President: H.Hundes- hagen)
<i>In memoriam</i> G.v.Hevesy: Frontiers of Nuclear Medicine Berlin - New York, Springer, 1971 (Ed.W.Horst)	1971 in Antwerpen/Belgium IXth International Annual Meeting (President: P.van Vaeren- bergh)
G.v.Hevesy <i>Prize</i> : G.Meuret University of Freiburg, Germany	1972 in Freiburg/Germany Xth International Annual Meeting (President: G.Hoffman)
G.v.Hevesy <i>Medal and Lecture</i> : John H.Lawrence University of California, Berkeley, USA	1973 in Athens/Greece XIth International Annual Meeting (President: B.Malamos)
G.v.Hevesy <i>Medal and Lecture</i> : H.J.Severing University on Munich, Germany	1974 in Munich/Germany XIIth International Annual Meeting (President: H.W.Papst)
G.v.Hevesy <i>Prize</i> : H.Maseri, a.o. University of Pisa, Italy D.A.Goodwin, a.o. Stanford University School of Medicine (VA), Palo Alto, University of California, Davis, USA	1974 in Tokyo/Japan First World Congress of Nuclear Medicine (President: H.Ueda)
G.v.Hevesy <i>Medal and Lecture</i> : Hilde Levi University of Copenhagen, Denmark	1975 in Copenhagen/Denmark XIIIth International Annual Meeting (President: T.Munkner)
G.v.Hevesy <i>Prize</i> : H.P.Breuel University of Göttingen, Germany	

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\* For further information see:

World Dictionary of Awards and Prizes, London, GB, 1977, Europa  
Publications Ltd.

G.v.Hevesy *Medal and Lecture*:  
 H.N.Wagner, Jr.  
 The Johns Hopkins Medical  
 Institution, Baltimore, USA

*1976 in Berlin/Germany*  
 XIVth International Annual  
 Meeting (President: K.Oeff)

G.v.Hevesy *Medal and Lecture*:  
 A.H.W.Aten Jr.  
 University of Amsterdam, The  
 Netherlands

*1977 in Groningen/The Netherlands*  
 XVth International Annual Meeting  
 (President: M.G.Woldring)

G.v.Hevesy *Prize*:  
 L.Gould, a.o.  
 University of Washington (VA),  
 Seattle, University of Cali-  
 fornia, Los Angeles, USA

*1978 in Washington DC/USA*  
 Second World Congress of Nuclear  
 Medicine  
 (President: H.N.Wagner, Jr.)

G.v.Hevesy *Medal and Lecture*:  
 Rosalyn S. Yalow  
 VA Hospital, Bronx, New York  
 and Mont Sinai School of  
 Medicine, NY, USA

*1978 in Madrid/Spain*  
 XVIth International Annual  
 Meeting  
 (President: J.Ortiz-Berrocal)

G.v.Hevesy *Medal and Lecture*:  
 G.L.Brownell  
 Havard Medical School Boston  
 and MIT Cambridge, USA

*1979 in Innsbruck/Austria*  
 XVIIth International Annual  
 Meeting  
 (President: G.Riccabona)



## Georg von Hevesy

in memoriam

\* 1. VIII 1885 in Budapest

† 5. VII 1966 Freiburg i. Br.

## Some Biographical Information About Georg von Hevesy

Georg von Hevesy was born in Budapest on the 1st of August, 1885. He studied chemistry, mathematics, and physics in Budapest, Berlin, and Freiburg im Breisgau where he also obtained his doctorate. He then worked for two years with Loreñz and Willstaetter at the ETH Zurich, in 1911 he was with Haber in Karlsruhe and until 1913 with Rutherford in Manchester. In 1913, with Paneth in Vienna, he carried out the earliest work on radioactive indicators. After a short period at the University of Budapest he joined Niels Bohr in Copenhagen until 1926; in 1922 he discovered hafnium and in the following year did his first work on radioactive indicators in biology. From 1926 to 1934 he was Director of the Physical-Chemical Institute of the University of Freiburg i.Br. In 1934 he left Germany for political reasons and returned to Niels Bohr in Copenhagen. In 1935 he and Chiewitz carried out the first works with artificial radionuclides ( $^{32}\text{P}$ ). They were supported by O.H. Lawrence (Berkeley) and A. Krogh. In 1943 he was awarded the Nobel Prize. From then until 1961 he worked in Stockholm in the Theorell and von Euler Institutes and the Radiumhemmet. His interests now embraced clinical, physiological, and biological problems, and also radiobiology. Georg von Hevesy died on 5th July, 1966, in Freiburg i.Br. surrounded by his family and tended by his friend and physician, L. Heilmeyer.

Georg von Hevesy published more than 400 articles in the course of his career, in addition to a number of world famous books which have been translated into many languages. He received the Honorary Degrees of 14 universities, and the membership of 13 academies. From the medals and prizes he received the following is only a selection: 1944 Nobel Prize, 1949 Copley Medal of the Royal Society, 1956 Silvanus Thompson Medal of the British Society of Radiology, 1959 Atoms for Peace Award, and 1960 the Cotius Medal of Halle Academy of Sciences.

Let us cite some of the famous Lectures he gave:

Durham Lecture Havard University, Boston, 1940

Schoenheimer Memorial Lecture, New York, 1951

Heinrich Wieland Memorial Lecture of the Orden Pour le Mérite, Bonn, 1958

Italian Society of Nuclear Medicine in Turin, 1957:

Historical Progress of Isotopic Methodology and Its Influence on the Biological Sciences

Society of Nuclear Medicine, USA, Pittsburg, 1961:

Lecture on Marie Curie and Her Contemporaries

Gesellschaft für Nuklearmedizin (in statu nascendi) in Freiburg, 1962:

Historische Übersicht über einige Anwendungen radioaktiver Isotope in der Medizin.

Georg von Hevesy was honored in the following countries: Austria, Belgium, Brazil, Denmark, Finland, France, Germany, Great Britain, Hungary, India, Italy, Japan, South Africa, Sweden, United States of America, and the Vatican.



# Contents

Instead of a Preface (W.Horst) .....	V
Georg von Hevesy Foundation of Nuclear Medicine .....	VI
Some Biographical Information About Georg von Hevesy (W.Horst, H.N.Wagner, Jr., and J.W.Buchanan) .....	IX
Introduction (H.N.Wagner, Jr.) .....	1
1 Noninvasive Detection of 47% Diameter Coronary Stenosis by Myocardial Emission Computed Tomography of Nitrogen-13 Ammonia During Pharmacologic Coronary Vasodilation in Intact Dogs (K.L.Gould, H.R.Schelbert, M.E.Phelps, and E.J.Hoffman) .....	4
Instrumentation .....	19
2 Regional Myocardial Perfusion Assessed by Nitrogen-13 Labeled Ammonia and Positron Emission Computerized Axial Tomography (H.R.Schelbert, M.E.Phelps, E.J.Hoffman, and S.-C.Huang) .....	20
3 Physiologic Tomography (M.E.Phelps, E.J.Hoffman, S.-C.Huang, H.S.Schelbert, and D.E.Kuhl) .....	35
4 Dynamic Emission Transaxial Tomography for Positron Emitters (T.F.Budinger, S.E.Derenzo, R.H.Huesman, J.L.Cahoon, and Y.Yano) .....	52
5 Improved Longitudinal and Transverse Single-Photon Emission Computed Body Tomography Using an Anger Tomographic Scanner (E.V.Garcia and J.E.Diaz) .....	71
6 Rapid and Inexpensive Cardiac Tomography Using a Widefield Anger Camera (R.A.Vogel, M.T.LeFree, and D.L.Kirch) .....	79
7 Image Processing and Displays (A.S.Houston) .....	90
8 Kinetic Studies Comparing Nuclear Methods With Contrast- Enhanced Computed Tomography (C.L.Partain and E.V.Staab) .....	105
Radiopharmaceuticals .....	115
9 Pharmacokinetic Imaging: A New Concept in Functional Imaging (R.Beihn and M.Vannier) .....	116
10 Ruthenium-97 Labeled Compounds - a New Class of Radio- pharmaceuticals (S.C.Srivastava, P.Richards, P.Som, G.Meinken, H.L.Atkins, A.Sewatkar, and T.H.Ku) .....	123

11 The Transferrin-Receptor Hypothesis: Mechanism of Tumor Uptake of Carrier-Free Gallium-67 (S.M.Larson, J.S.Rasey, and D.R.Allen) .....	134
12 Factors Affecting <sup>67</sup> Ga Distribution (R.G.Sephton) .....	154
13 Molecular Basis of the Regulation of Iron-59 and Gallium-67 Transport in Normal and Simian Virus 40-Transformed Cells (J.A.Fernandez-Pol) .....	162
14 Effect of Carrier on the Distribution of <sup>54</sup> Mn and <sup>67</sup> Ga in Tumor-Bearing Animals (S.E.Halpern and P.Hagan) .....	183
15 The Effect of Continuous Infusion on Tissue Distribution of <sup>54</sup> Mn and <sup>67</sup> Ga in Tumor-Bearing Animals (P.Hagan and S.E.Halpern) .....	189
16 <sup>13</sup> N-L-Amino Acids Synthesized Enzymatically for in vivo Metabolic Studies (A.S.Gelbard) .....	193
17 The Use of a Crown Ether to Synthesize a Fluorine-18 Labeled Steroid (L.A.Spitznagle, C.A.Marino, and R.R.Eng) .....	199
Clinical Applications .....	203
18 Detection of Coronary Artery Disease by First Pass Radio-nuclide Exercise Testing (J.A.Jengo, J.J.Uszler, R.Freeman, V.Oren, and I.Mena) .....	204
19 Response of Left Ventricular Volume and Ejection Fraction to Exercise in Normal Persons and Patients With Angina pectoris (R.Slutsky, M.Pfisterer, G.Schuler, J.Karliner, and W.Ashburn) ..	214
20 Measurement of Aortic and Mitral Regurgitation by Gated Cardiac Blood Pool Scans (P.Rigo, P.O.Alderson, R.M.Robertson, and L.C.Becker) .....	222
21 The Effect of Beta Adrenergic Blocking Drugs on Left Ventricular Function in Thyrotoxicosis (P.Gulliford and M.Critchley) .....	229
22 Trend Scintigrams in Studies of Ventricular Function (H.Rösler, M.Ramos, U.Noelpp, C.Salzmann, and P.Fritschy) .....	235
23 Perfusion Scintigraphy Compared With Pulmonary Arteriography in the Diagnosis of Pulmonary Embolism (C.Marini, G.Di Ricco, A.Palla, G.Susini, G.Maltinti, A.Santolicandro, and C.Giuntini) .....	242
24 The Deposition of Labeled Aerosols in Lung Disorders (A.Santolicandro, A.Palla, and C.Giuntini) .....	257
25 Preimplantation Evaluation of Renal Transplant Donor Kidneys (D.S.Marks, L.H.Toledo-Pereyra, R.P.Mieto, and W.W.Halpin) .....	271
26 Assessment of the Value of Scintigraphic Procedures: A Case Study (B.J.McNeil and S.G.Pauker) .....	276

XII

In Vitro Nuclear Medicine ..... 285

27 Radiorespirometry in Identification of Mycobacteria  
(E.E.Camargo, J.A.Kertcher, and S.M.Larson) ..... 286

28 Quantitative Solid Phase Radioimmunoassay of Allergen-  
specific IgG  
(R.G.Hamilton and N.F.Adkinson) ..... 299

29 A Receptor Assay of Long-Acting Thyroid Stimulator (LATS)  
(Y.Ochi, T.Hachiya, M.Yoshimura, T.Miyazaki, and Y.Kajita) ..... 308

30 Radioimmunoassay:  
Past, Present, and Potential  
(R.S.Yalow) ..... 318

Subject Index ..... 329

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XIV

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