PROGRAM PLANNING COMMITTEE

William C. Eckelman
David M. Goldenberg (Chairman)
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Thomas Hoffman
Steven M. Larson
Stanley E. Order
Howard Sands
Mette Strand

PROGRAM

Introduction to the Second Conference on Radioimmunodetection and Radioimmunotherapy of Cancer.
David M. Goldenberg 778s

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Radiochemistry of Antibodies

Chairperson: William C. Eckelman

Development of Radiochemically Pure Antibodies.
W. C. Eckelman 780s

Improving the Tumor Retention of Radioiodinated Antibody: Aryl Carbohydrate Adducts.

Stable Bifunctional Chelates of Metals Used in Radiotherapy.
Min K. Moi, Sally J. DeNardo, and Claude F. Meares 789s

Preclinical Evaluation of an “Instant” 99mTc-labeling Kit for Antibody Imaging.
Hans J. Hansen, Anastasia L. Jones, Robert M. Sharkey, Ruth Grebenau, Nancy Blazejewski, Arthur Kunz, Michael J. Buckley, Edward S. Newman, Frank Ostella, and David M. Goldenberg 794s

99mTc Labeling of Proteins: Initial Evaluation of a Novel Diaminedithiol Bifunctional Chelating Agent.
Kwamena E. Baidoo, Ursula Scheffel, and Susan Z. Lever 799s

Disulfide Bond-targeted Radiolabeling: Tumor Specificity of a Streptavidin-biotinylated Monoclonal Antibody Complex.
Renato B. del Rosario and Richard L. Wahl 804s

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Experimental Studies of Radioimmunodetection

Chairpersons: Howard Sands and Jeffrey Schlom

Experimental Studies of Radioimmunodetection of Cancer: An Overview.
Howard Sands 809s

Physiological Barriers to Delivery of Monoclonal Antibodies and Other Macromolecules in Tumors.
Rakesh K. Jain 814s

Innovations That Influence the Pharmacology of Monoclonal Antibody Guided Tumor Targeting.
Jeffrey Schlom, Patricia Horan Hand, John W. Grein, David Colcher, Shashi Shrivastav, Jorge A. Carrasquillo, James C. Reynolds, Steven M. Larson, and Andrew Raubitschek 820s

Comparison of Tumor Targeting in Nude Mice by Murine Monoclonal Antibodies Directed against Different Human Colorectal Cancer Antigens.

Pharmacokinetics of 99mTc-Metallothionein-B72.3 and Its F(ab')2 Fragment.
Beverly A. Brown, Cynthia B. Dearborn, Cynthia A. Drozynski, and Howard Sands 835s

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J. David Beatty, Barbara G. Beatty, Margaret O'Conner-Tressel, Tulan Do, and Raymond J. Paxton 840s
Mechanism of Decreasing Liver Uptake of $^{111}$In-labeled Anti-Carcinoembryonic Antigen Monoclonal Antibody by Specific Antibody Pretreatment in Tumor Bearing Mice.

Barbara G. Beatty, Margaret O'Connor-Tressel, Tulan Do, Raymond J. Paxton, and J. David Beatty

Uptake and Metabolism of $^{111}$In-labeled Monoclonal Antibody B6.2 by the Rat Liver.

Peter L. Jones, Beverly A. Brown, and Howard Sands

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Douglas W. Rea, Michel E. Ullée, Benjamin A. Belinka, Jr., Daniel J. Coughlin, and Vernon L. Alvarez

Radiolocalization of Monoclonal Antibodies in Hepatic Metastases from Human Colon Cancer in Congenitally Athymic Mice.

Kazuhiko Yoshida, Michel Rivoire, Chaitanya Divgi, Sydney Welt, Alfred M. Cohen, and Elin R. Sigurdson

Monoclonal Antibody Targeting of Human Non-Small Cell Carcinoma of the Lung.

Rhona Stein, Robert M. Sharkey, and David M. Goldenberg

Carcinoembryonic Antigen and $\alpha$-Fetoprotein Expression and Monoclonal Antibody Targeting in a Human Hepatoma/ Nude Mouse Model.

Zhifu F. Wang, Rhona Stein, Robert M. Sharkey, and David M. Goldenberg

Comparative Pharmacokinetics of a Murine Monoclonal Antibody to a Rat Colon Tumor in Rats and Nude Mice.

Jorge Laborda, Jean-Yves Douillard, Elaine F. Lizzo, and Thomas Hoffman

Radioimmunodetection of Hepatic Metastases from Human Colon Cancer in Nude Mice with a Gamma-detecting Probe.

Michel Rivoire, Kazuhiko Yoshida, Chaitanya Divgi, Sydney Welt, Alfred Cohen, and Elin R. Sigurdson

Patterns of Antigen Distribution in Human Carcinomas.

M. Jules Mattes, Pierre P. Major, David M. Goldenberg, Arnold S. Dion, Robert V. P. Hutter, and Kenneth M. Klein

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Irwin Fand, Robert M. Sharkey, and David M. Goldenberg

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Chairpersons: Steven M. Larson and Abass Alavi


Steven M. Larson

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Antonio G. Siccardi

Radioimaging of Melanoma Using $^{99m}$Tc-labeled Fab Fragment Reactive with a High Molecular Weight Melanoma Antigen.

Lamk M. Lamki, Alexander A. Zukiwsky, L. Joy Shanken, Sewa S. Legha, Robert S. Benjamin, Carl E. Plager, Darrell F. Salk, Robert W. Schroff, and James L. Murray

Clinical Studies of Cancer Radioimmunodetection with Carcinoembryonic Antigen Monoclonal Antibody Fragments Labeled with $^{123}$I or $^{99m}$Tc.

David M. Goldenberg, Hildegard Goldenberg, Robert M. Sharkey, Edith Higginbotham-Ford, Robert E. Lee, Lawrence C. Swayne, Karen A. Burger, Diane Tsai, Jo Ann Horowitz, Thomas C. Hall, Carl M. Pinsky, and Hans J. Hansen

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J. David Beatty, Lawrence E. Williams, David Yamauchi, Blaine A. Morton, L. Robert Hill, Barbara G. Beatty, Raymond J. Paxton, Bruce Merchant, and John E. Shively

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Pierre P. Major, Arnold S. Dion, Charlene J. Williams, M. Jules Mattes, Taqui Wang, and Leonard Rosenthal

Human Biodistribution of $^{111}$In-labeled B72.3 Monoclonal Antibody.

Steven J. Harwood, Robert G. Carroll, William B. Webster, Linda M. Zangara, David L. Laven, Michele A. Morrissey, and Barbara J. Sinni

Immunolymphoscintigraphy and Immunoscintigraphy of Ovarian and Fallopian Tube Cancer Using F(ab$^\prime$)$_2$, Fragments of Monoclonal Antibody OC 125.

Penti Lehtovirta, Kalevi J. A. Kairemo, Kristian Liewendahl, and Markku Seppälä

Lymphoscintigraphy in Melanoma: Initial Evaluation of a Low Protein Dose Monoclonal Antibody Cocktail.

Richard L. Wahl, Monica Liebert, John Headington, Barry S. Wilson, Barry L. Shulkin, Jon W. Johnson, Shirley Mallett, Ronald B. Natale, William Coon, Mary East, Robertson Davenport, M. B. Brown, John T. Niederhuber, and Neil A. Swanson

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Kalevi J. A. Kairemo
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\textit{Chairperson: Mette Strand}


\textit{David A. Scheinberg and Mette Strand} ................................................................. 962s

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\textit{Barry W. Wessels} ........................................................................................................... 970s

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\textit{Jeffery A. Williams, Barry W. Wessels, James A. Edwards, Kenneth A. Kopfer, Philip M. Wanek, Moody D. Wharam, Stanley E. Order, and Jerry L. Klein} ..... 974s

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\textit{Blaine A. Morton, Barbara G. Beatty, Angeles P. Mison, Philip M. Wanek, and J. David Beatty} ....................... 1008s

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High Dose Radiolabeled Antibody Therapy of Lymphoma.


Radioimmunotherapy of Human B-Cell Lymphoma with \textsuperscript{90}Y-conjugated Antiidiotype Monoclonal Antibody.


Estimation of Monoclonal Antibody-associated \textsuperscript{90}Y Activity Needed to Achieve Certain Tumor Radiation Doses in Colorectal Cancer Patients.

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Tumor, Red Marrow, and Organ Dosimetry for $^{131}$I-labeled Anti-Carcinoembryonic Antigen Monoclonal Antibody.
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Michele J. Losman, Robert L. DeJager, Marc Monestier, Robert M. Sharkey, and David M. Goldenberg 1055s

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COVER LEGEND

The publication of the first conference held on the subject of cancer imaging and therapy with radiolabeled antibodies appeared as a supplement to the August 1980 issue of Cancer Research and has served as a frequently cited reference for the past 10 years. Pictured are five of the scientists who made critical contributions to the development of radioimmunodetection and radioimmunotherapy. Phil Gold (far left), codiscoverer of carcinoembryonic antigen, which has served as the prototype cancer marker and target for labeled antibodies, is currently Physician-in-Chief, Montreal General Hospital, Montreal, Canada. David Pressman (second from left), deceased, is credited with having made the early and seminal observations of organ and cancer targeting with antibodies against rodent tumors. David M. Goldenberg (center), who is President of the Center for Molecular Medicine and Immunology, Newark, New Jersey, organized the first and second conferences and provided the first demonstration in animals and humans of cancer imaging with radiolabeled antibodies against carcinoembryonic antigen, as well as a number of other cancer markers. William F. Bale (second from right), deceased, also was an early pioneer of animal studies of tumor localization with radiolabeled antibodies and pursued fibrin clot imaging and tumor therapy with radiolabeled anti-fibrin antibodies. Stanley E. Order (far right), who was one of the first proponents and innovators of radioimmunotherapy, is currently Professor and Director of Radiation Oncology, Johns Hopkins Cancer Center, Baltimore, Maryland. This photograph was made at the UICC Workshop on Radioimmunodetection of Cancer, Lexington, Kentucky, July 19–21, 1979.
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