

World Cancer Report

Edited by Bernard Stewart and Christopher P. Wild

ISBN 978-92-832-0429-9

World Cancer Report Contributors (updated 12/07/2013)

Jean-Pierre Abastado, Singapore Immunology Network, Singapore

Cary Adams, Union for International Cancer Control, Geneva, Switzerland

Isaac F. Adewole, University of Ibadan, Nigeria

Naomi E. Allen, University of Oxford, Oxford, United Kingdom

Nada Al Alwan, Iraqi National Cancer Research Center, Baghdad University Medical College;
Executive Director, National Program for Research and Early Detection of Cancer, Iraq

Mahul B. Amin, Cedars-Sinai Medical Center, Los Angeles, CA, USA

Benjamin O. Anderson, Seattle Cancer Care Alliance, Seattle, WA, USA

Ahti Anttila, Mass Screening Registry/Finnish Cancer Registry, Helsinki, Finland

Daniel A. Arber, Stanford University Medical Center, Stanford, CA, USA

Bruce G. Armstrong, School of Public Health, University of Sydney, Australia

Silvina Arrossi, National Council for Scientific and Technological Research, CONICET/CEDES, Buenos Aires, Argentina

Robert A. Baan, International Agency for Research on Cancer, Lyon, France

Yung-Jue Bang, Seoul National University College of Medicine and Seoul National University Hospital, Seoul, South Korea

Emmanuel Barillot, Institut Curie, Paris, France

Jill Barnholtz-Sloan, Case Western Reserve University, Cleveland, OH, USA

Laura E. Beane Freeman, National Cancer Institute, Bethesda, MD, USA

Rachid Bekkali, Lalla Salma Foundation-Cancer Prevention and Treatment, Rabat, Morocco

Agnes Binagwaho, Ministry of Health, Kigali, Rwanda

Evan Blecher, American Cancer Society, Atlanta, GA, USA

Fred T. Bosman, University Institute of Pathology, Lausanne, Switzerland



World Cancer Report

Edited by Bernard Stewart and Christopher P. Wild

ISBN 978-92-832-0429-9

Peter Bouwman, the Netherlands Cancer Institute, Division of Molecular Pathology, Cancer Genomics Centre Netherlands & Cancer Systems Biology Center, Amsterdam, the Netherlands

Elisabeth Brambilla, Centre Hospitalier Universitaire Albert Michallon, Grenoble, France

Freddie Bray, International Agency for Research on Cancer, Lyon, France

Paul Brennan, International Agency for Research on Cancer, Lyon, France

Louise Brinton, National Cancer Institute, Bethesda, MD, USA

Michael Brown, Royal Adelaide Hospital, Adelaide, Australia

Nathalie Broutet, World Health Organization, Geneva, Switzerland

Heather Bryant, Canadian Partnership Against Cancer, Toronto, Canada

Nikki Burdett, Royal Adelaide Hospital, Adelaide, Australia

Robert Charles Burton, International Union Against Cancer, National Cancer Control Initiative, Australia

Agnès Buzyn, Institut National du Cancer, Paris, France

Kenneth Cantor, National Institutes of Health, Bethesda, MD, USA

Federico Canzian, German Cancer Research Center, Heidelberg, Germany

Michele Carbone, University of Hawaii Cancer Center, Honolulu, HI, USA

Fatima Carneiro, University of Porto, Portugal

Webster K. Cavenee, University of California at San Diego, La Jolla, CA, USA

Eduardo L. Cazap, National Cancer Institute, Ministry of Health, Buenos Aires, Argentina

Stephen Chanock, National Cancer Institute, Bethesda, MD, USA

Bob Chapman, American Cancer Society Cancer Action Network, Washington, DC, USA

Simon Chapman, School of Public Health, University of Sydney, Australia

Chien-Jen Chen, Academic Sinica, Taipei, Taiwan, China

Il Ju Choi, Centre for Gastric Cancer, National Cancer Centre, Goyang, Republic of Korea



World Cancer Report

Edited by Bernard Stewart and Christopher P. Wild

ISBN 978-92-832-0429-9

Rafael Moreira Claro, Center for Epidemiological Studies in Health and Nutrition, University of São Paulo (NUPENS/USP), Sao Paulo, Brazil

Hans Clevers, Hubrecht Institute, Royal Netherlands Academy of Arts and Sciences and University Medical Centre Utrecht, the Netherlands

Vincent Coglianò, U.S. Environmental Protection Agency, Integrated Risk Information System, Arlington, VA, USA

Aaron Cohen, Health Effects Institute, Boston, MA, USA

Carlo M. Croce, Department of Molecular Virology, Immunology and Medical Genetics, The Ohio State University Medical Center, Columbus, OH, USA

Min Dai, Cancer Hospital, Chinese Academy of Medical Sciences, Beijing, China

Sarah C. Darby, Environmental Change Institute, University of Oxford, United Kingdom

Peter B. Dean, International Agency for Research on Cancer, Lyon, France

Lynette Denny, Groote Schuur Hospital, Observatory, Cape Town, South Africa

John E. Dick, Campbell Family Institute, Ontario Cancer Institute, Princess Margaret Cancer Centre, University Health Network, Toronto, Canada

Joakim Dillner, Karolinska Institute, Stockholm, Sweden

Susan M. Domchek, Basser Research Center, Abramson Cancer Center, University of Pennsylvania, Philadelphia, PA, USA

Tandin Dorji, Department of Public Health, Ministry of Health, Thimphu, Bhutan

Roland Dray, International Agency for Research on Cancer, Lyon, France

Majid Ezzati, Centre for Environment and Health, Department of Epidemiology and Biostatistics, School of Public Health, Imperial College London, United Kingdom

Lee Fairclough, University of Calgary, Canada

Jacques Ferlay, International Agency for Research on Cancer, Lyon, France

David Forman, International Agency for Research on Cancer, Lyon, France

Silvia Franceschi, International Agency for Research on Cancer, Lyon, France



World Cancer Report

Edited by Bernard Stewart and Christopher P. Wild

ISBN 978-92-832-0429-9

Lindsay A. Frazier, Dana-Farber Cancer Institute, Boston, MA, USA

Christine M. Friedenreich, Alberta Health Services-Cancer Care, Calgary, Canada

Søren Friis, Danish Cancer Society Research Center, Copenhagen, Denmark

Tamara S. Galloway, College of Life and Environmental Science, University of Exeter, United Kingdom

Maurice Gatera, Rwanda Biomedical Center, Kigali, Rwanda

Wentzel C.A. Gelderblom, South African Medical Research Council, Cape Town, South Africa

Margaret A. Goodell, Stem Cells and Regenerative Medicine Center, Baylor College of Medicine, Houston, TX, USA

Sharon Grant, International Agency for Research on Cancer, Lyon, France

Adèle C. Green, Queensland Institute of Medical Research, Brisbane, Australia and University of Manchester, United Kingdom

Wang Guiqi, Cancer Hospital/Institute, Chinese Academy of Medical Sciences and Peking Union Medical College, Beijing, China

Christine Guo Lian, Brigham & Women's Hospital, Harvard Medical School, Boston, MA, USA

Prakash Gupta, Healis, Sekhsaria Institute for Public Health, Mumbai, India

Andrew J. Hall, London School of Hygiene and Tropical Medicine, London, United Kingdom

Stanley R. Hamilton, University of Texas MD Anderson Cancer Center, Houston, TX, USA

Marianne Hammer, Norwegian Cancer Society, Oslo, Norway

Curtis C. Harris, National Cancer Institute, Bethesda, MD, USA

Takanori Hattori, Shiga University of Medical Science, Tokyo, Japan

Zdenko Herceg, International Agency for Research on Cancer, Lyon, France

Hector Hernandez Vargas, International Agency for Research on Cancer, Lyon, France

Rolando Herrero, International Agency for Research on Cancer, Lyon, France

David Hill, Cancer Council Victoria, Carlton, Australia



World Cancer Report

Edited by Bernard Stewart and Christopher P. Wild

ISBN 978-92-832-0429-9

Martin Holcman, Institute of Cancer Research, Medical University of Vienna, Vienna, Austria

James F. Holland, Icahn School of Medicine at Mount Sinai, Mount Sinai Medical Center, New York, NY, USA

Ralph Hruban, Johns Hopkins Medical Institutions, Baltimore, MD, USA

Thomas Hudson, Ontario Institute for Cancer Research, Toronto, Canada

Peter Humphrey, Washington University School of Medicine, St. Louis, MO, USA

Elaine Jaffe, National Institutes of Health, Bethesda, MD, USA

Prabhat Jha, St. Michael's Hospital, Dalla Lana School of Public Health, Toronto, Canada

Jos Jonkers, the Netherlands Cancer Institute, Division of Molecular Pathology, Cancer Genomics Centre Netherlands & Cancer Systems Biology Center, Amsterdam, the Netherlands

Margaret R. Karagas, Dartmouth Medical School, Lebanon, NH, USA

Michael Karin, Laboratory of Gene Regulation and Signal Transduction, Department of Pharmacology and Pathology, UCSD School of Medicine, La Jolla, CA, USA

Namory Keita, Service de Gynécologie/Obstétrique, Université de Conakry, Guinea

Ausra Kesminiene, International Agency for Research on Cancer, Lyon, France

Michael C. Kew, University of Cape Town, South Africa

Tim Key, University of Oxford, United Kingdom

Levon Khachigian, University of New South Wales, Sydney, Australia

Thiravud Khuhaprema, National Cancer Institute, Bangkok, Thailand

Paul Kleihues, University Hospital Zurich, Switzerland

Günter Klöppel, Technical University of Munich, Germany

Manolis Kogevinas, Centre for Research in Environmental Epidemiology (CREAL), IMIM (Hospital del Mar Research Institute), Barcelona, Spain

Nobuo Koinuma, Tohoku University School of Medicine, Sendai, Miyagi, Japan



World Cancer Report

Edited by Bernard Stewart and Christopher P. Wild

ISBN 978-92-832-0429-9

Guido Kroemer, INSERM, Institut Gustave Roussy, Villejuif; University of Paris Descartes, Centre de Recherche des Cordeliers, Hôpital Européen George Pompidou, Paris, France

James Krycer, Garvan Institute, Sydney, Australia

René Lambert, International Agency for Research on Cancer, Lyon, France

Sunil R. Lakhani, University of Queensland, the Royal Brisbane & Women's Hospital, Brisbane, Australia

Johanna W. Lampe, Fred Hutchinson Cancer Research Centre, Seattle, WA, USA

Robert Langley, University of Texas MD Anderson Cancer Center, Houston, TX, USA

Lawrence H. Lash, Wayne State University, School of Medicine, Detroit, MI, USA

Eric Lavigne, University of Laval, Montreal, Canada

Eduardo Lazcano Ponce, Instituto Nacional de Salud Pública, Mexico

Maria Leon-Roux, International Agency for Research on Cancer, Lyon, France

Alex Liber, American Cancer Society, Atlanta, GA, USA

Jonathan Liberman, McCabe Centre for Law and Cancer, Carlton, Australia

Dongxin Lin, Cancer Institute and Hospital, Chinese Academy of Medical Sciences, Beijing, China

Dana Loomis, International Agency for Research on Cancer, Lyon, France

Joannie Lortet-Tieulent, International Agency for Research on Cancer, Lyon, France

Judith Mackay, World Lung Foundation, Hong Kong, China

Roger Magnusson, Sydney Law School, University of Sydney, Australia

Reza Malekzadeh, Tehran University of Medical Sciences, Tehran, Iran

Beela Sarah Mathew, Regional Cancer Centre, Trivandrum, India

Valerie McCormack, International Agency for Research on Cancer, Lyon, France

James McKay, International Agency for Research on Cancer, Lyon, France

David Melzer, University of Exeter Medical School, Exeter, United Kingdom



World Cancer Report

Edited by Bernard Stewart and Christopher P. Wild

ISBN 978-92-832-0429-9

Kathryn R. Middleton, Warren Alpert Medical School of Brown University & The Miriam Hospital, Providence, RI, USA

Martin Mihm, Harvard Medical School, Boston, MA, USA

J. David Miller, Carleton University, Ottawa, Canada

Saverio Minucci, Istituto Europeo di Oncologia, Milan, Italy

Holger Moch, University Hospital of Zurich, Switzerland

Elizabeth Montgomery, Johns Hopkins Medical Institutions, Baltimore, MD, USA

Rebecca Morton Doherty, Union for International Cancer Control, Geneva, Switzerland

Raul Hernando Murillo Moreno, Instituto Nacional de Cancerología, Bogotá, Colombia

Liam J. Murray, Centre for Public Health, School of Medicine, Dentistry and Biomedical Sciences, Queen's University Belfast, United Kingdom

Richard Muwonge, International Agency for Research on Cancer, Lyon, France

Robert Newton, University of York, United Kingdom

Fidele Ngabo, Rwanda Biomedical Center, Kigali, Rwanda

Mark J. Nieuwenhuijsen, Center for Research in Environmental Epidemiology (CREAL), Parc de Recerca Biomèdica de Barcelona, Spain

Jane R. Nilson, American Cancer Society, Atlanta, GA, USA

Folakemi T. Odedina, University of Florida, Gainesville, FL, USA

G. Johan Offerhaus, University Medical Center Utrecht, Utrecht, the Netherlands

Hiroko Ohgaki, International Agency for Research on Cancer, Lyon, France

Magali Olivier, International Agency for Research on Cancer, Lyon, France

Jørgen Olsen, Danish Cancer Society Research Center, Copenhagen, Denmark

Pier Paolo Pandolfi, Beth Israel Deaconess Cancer Center and Harvard Medical School, Boston, MA, USA

Gianpaolo Papaccio, Second University of Naples, Naples, Italy



World Cancer Report

Edited by Bernard Stewart and Christopher P. Wild

ISBN 978-92-832-0429-9

Chris Paraskeva, School of Cellular & Molecular Medicine, University of Bristol, United Kingdom

Werner Paulus, Institute of Neuropathology, Münster, Germany

José Rogelio Pérez Padilla, Instituto Nacional de Enfermedades Respiratorias, Mexico

Gérald E. Piérard, University Hospital Sart Tilman, Liège, Belgium

Christopher J. Portier, National Center for Environmental Health and Agency for Toxic Substances and Disease Registry, Centers for Disease Control and Prevention, Atlanta, GA, USA

Jaime Prat, Autonomous University of Barcelona, Spain

Pekka Puska, National Institute for Health and Welfare, Helsinki, Finland

You-Lin Qiao, Department of Cancer Epidemiology, Cancer Institute, Chinese Academy of Medical Sciences and Peking Union Medical College, China

Thangarajan Rajkumar, Cancer Institute, Madras, India

Kunnambath Ramadas, Regional Cancer Centre, Trivandrum, India

G. K. Rath, Department of Radiotherapy, Chief Drbrairch, AIIMS, New Delhi, India

Cecily S. Ray, Healix - Sekhsaria Institute for Public Health, Mumbai, India

Jürgen Rehm, Centre for Addiction and Mental Health, Toronto, Canada

Luis Felipe Ribeiro Pinto, Instituto Nacional de Câncer, Rio de Janeiro, Brazil

Elio Riboli, Imperial College London, United Kingdom

Leanne Riley, World Health Organization, Geneva, Switzerland

Ron Riley, United States Department of Agriculture, Agricultural Research Service, Athens, GA, USA

Eve Roman, ECSG, Department of Health Sciences, University of York, Heslington, United Kingdom

Isabelle Romieu, International Agency for Research on Cancer, Lyon, France

Lesley Rushton, School of Public Health & MRC-HPA Centre for Environment and Health, Imperial College London, United Kingdom

Anne Lise Ryel, Kreftforeningen/Norwegian Cancer Society, Oslo, Norway



World Cancer Report

Edited by Bernard Stewart and Christopher P. Wild

ISBN 978-92-832-0429-9

Jonathan Samet, University of Southern California, Los Angeles, CA, USA

Massoud Samiei, IAEA-PACT, Vienna, Austria

Rengaswamy Sankaranarayanan, International Agency for Research on Cancer, Lyon, France

Rodolfo Saracci, International Agency for Research on Cancer, Lyon, France

Guido Sauter, University Medical Center, Hamburg-Eppendorf, Germany

Catherine Sauvaget, International Agency for Research on Cancer, Lyon, France

Fabio Savarese, Institute of Cancer Research, Medical University of Vienna, Vienna, Austria

Augustin Scalbert, International Agency for Research on Cancer, Lyon, France

Ghislaine Scelo, International Agency for Research on Cancer, Lyon, France

Mark Schiffman, National Cancer Institute, Division of Cancer Epidemiology & Genetics, Clinical Genetics Branch, Rockville, MD, USA

Stuart J. Schnitt, Beth Israel Deaconess Medical Center, Boston, MA, USA

Joachim Schüz, International Agency for Research on Cancer, Lyon, France

Surendra S. Shastri, WHO Collaborating Centre for Cancer Prevention, Screening and Early Detection, Tata Memorial Centre, Parel, Mumbai, India

Kevin Shield, Centre for Addiction and Mental Health, Toronto, Canada

Maria Sibilia, Institute for Cancer Research, Medical University of Vienna, Austria

Jack Siemiatycki, University of Montreal, Canada

Ronald Simon, University of Hamburg, Germany

Rashmi Sinha, National Cancer Institute, National Institutes of Health, Department of Health and Human Services, Rockville, MD, USA

Nadia Slimani, International Agency for Research on Cancer, Lyon, France

Avrum Spira, Boston University Medical Centre, Boston, MA, USA

Gustavo Stefanoff, INCA - Instituto Nacional de Câncer José Alencar Gomes da Silva, Rio de Janeiro, Brazil

World Cancer Report

Edited by Bernard Stewart and Christopher P. Wild

ISBN 978-92-832-0429-9

Eva Steliarova-Foucher, International Agency for Research on Cancer, Lyon, France

Bernard Stewart, Cancer Control Program, South East Sydney Public Health Unit, Australia

Kurt Straif, International Agency for Research on Cancer, Lyon, France

Simon Sutcliffe, Canadian Partnership Against Cancer, Canada

Rosemary Sutton, Children's Cancer Institute Australia, Lowy Cancer Research Centre, University of New South Wales, Randwick, Australia

Steven H. Swerdlow, University of Pittsburgh School of Medicine, Pittsburgh, PA, USA

Neil D. Theise, Beth Israel Medical Center, New York, NY, USA

David B. Thomas, Fred Hutchinson Cancer Research Center, Seattle, WA, USA

Lester Thompson, Woodland Hills Medical Center, CA, USA

Michael Thun, American Cancer Society, Atlanta, GA, USA

Mark R. Thursz, Imperial College London, United Kingdom

Massimo Tommasino, International Agency for Research on Cancer, Lyon, France

William D. Travis, Memorial Sloan Kettering Cancer Center, New York, NY, USA

Edward L. Trimble, National Cancer Institute, Rockville, MD, USA

Giorgio Trinchieri, National Cancer Institute, Bethesda, MD, USA

Ugyen Tshomo, Department of Obstetrics and Gynecology, Jigme Dorji Wangchuck National Referral (JDWNR) Hospital, Thimphu, Bhutan

Andreas Ullrich, World Health Organization, Geneva, Switzerland

Toshikazu Ushijima, National Cancer Center Research Institute, Tokyo, Japan

Carlos Vallejos Sologuren, División de Investigación, Oncosalud-Auna, Lima, Peru

Piet A. van den Brandt, GROW School for Oncology and Developmental Biology, Maastricht University, Maastricht, the Netherlands

James Vardiman, University of Chicago Medical Center, IL, USA



World Cancer Report

Edited by Bernard Stewart and Christopher P. Wild

ISBN 978-92-832-0429-9

Jim Vaught, National Cancer Institute, Bethesda, MA, USA

Paolo Vineis, Imperial College London, United Kingdom

Larry von Karsa, International Agency for Research on Cancer, Lyon, France

Melanie Wakefield, Cancer Council Victoria, Carlton, Australia

Guiqi Wang, Cancer Hospital/Institute, Chinese Academy of Medical Sciences, Peking Union Medical College, Beijing, China

Frank Weber, University Hospital, Essen, Germany

Elisabete Weiderpass Vainio, Karolinska Institute, Stockholm, Sweden

Zena Werb, Department of Anatomy, University of California, San Francisco, CA, USA

Theresa L. Whiteside, University of Pittsburgh Cancer Institute, Pittsburgh, PA, USA

Christopher P. Wild, International Agency for Research on Cancer, Lyon, France

Walter C. Willett, Harvard School of Public Health, Boston, MA, USA

Dillwyn Williams, Strangeways Research Laboratories, Worts Causeway, Cambridge, United Kingdom

Rena Wing, Brown University, Providence, RI, USA

Deborah M. Winn, National Cancer Institute, Bethesda, MD, USA

Martin Wiseman, World Cancer Research Fund International, London, United Kingdom

Scott Wittet, MalariaCare and Cervical Cancer Prevention Programs, PATH, Seattle, WA, USA

Magdalena Wozniak, International Agency for Research on Cancer, Lyon, France

Hai Yan, Duke University Medical Center, Durham, NC, USA

Teruhiko Yoshida, National Cancer Center Research Institute, Tokyo, Japan

Jiri Zavadil, International Agency for Research on Cancer, Lyon, France