



Journal of the Polish Society of Radiation Oncology, the Czech Society of Radiation Oncology, the Hungarian Society for Radiation Oncology, the Slovenian Society for Radiotherapy and Oncology, the Guild of Bulgarian Radiotherapists, the Polish Study Group of Head and Neck Cancer and the Greater Poland Cancer Centre, affiliated with the Spanish Society of Radiotherapy and Oncology and the Portuguese Society of Radiotherapy – Oncology

EDITOR IN CHIEF

Julian MALICKI, Greater Poland Cancer Centre, Poznań, Poland

CO-EDITORS

Wojciech GOLUSIŃSKI, Greater Poland Cancer Centre, Poznań, Poland
Isabel MONTEIRO GRILLO, Hospital de Santa Maria, Faculdade de Medicina de Lisboa, Lisboa, Portugal
Farran GUEDEA, Institut Català de Oncologia (ICO), Hospital Duran y Reynals, Barcelona, Spain
Tatiana HADJIEVA, Radiotherapy Department, University Hospital, Sofia, Bulgaria
Bogusław MACIEJEWSKI, Cancer Center and Institute of Oncology, Gliwice, Poland
Jiří PETERA, Medical Faculty Hospital, Hradec Králové, Czech Republic
Csaba POLGAR, National Institute of Oncology, Budapest, Hungary
Primož STROJAN, Institute of Oncology, Ljubljana, Slovenia

EDITORIAL OFFICE

Piotr MILECKI /medical consultant/
Piotr MARTENKA /medical consultant/
Marta BOGUSZ-CZERNIEWICZ /editorial office supervisor/
Sylvia CIESIŃSKA /administrative assistant/

EDITOR ADDRESS

Greater Poland Cancer Centre
Garbary 15 Str 61-866 Poznań, Poland
e-mail rpor@wco.pl

DIRECTOR

Andrzej BRONIEK

NEW BUSINESS DEVELOPMENT DEPARTMENT

DIRECTOR

Tomasz BYKOWSKI, PhD
t.bykowski@elsevier.com

HEAD OF JOURNALS PUBLISHING

Ewa KITTEL-PREJS
e.kittel-prejs@elsevier.com
+48 509 997 930

PUBLISHING MANAGER

Agnieszka PAWŁOWSKA
a.pawlowska@elsevier.com

SUBSCRIPTION AND DISTRIBUTION MANAGER

Jacek SOŁTYK
prenumerata@elsevier.com

LOCAL APPLICATIONS MANAGER

EES CO-ORDINATOR

Ewa BADURA
e.badura@elsevier.com
+48 515 082 585

ADVERTISING

KEY ACCOUNT MANAGER

Bogusława FRĄCZKIEWICZ
b.fraczkiewicz@elsevier.com

MARKETING & PROMOTION

MARKETING & PROMOTION MANAGER

Jolanta GŁOWIK
j.glowik@elsevier.com

LAYOUT AND COVER

Andrzej MOCZYDŁOWSKI
ISSN 1507-1367

EDITORIAL BOARD

Cynthia ARISTEI, University Hospital Monteluce, Perugia, Italy
Ann BARETT, University of East Anglia in Norwich, Norwich, UK
Harry BARTELINK, Netherlands Cancer Institute – AVL, Amsterdam, The Netherlands
Margarida BORREGO, Hospitais Universitários de Coimbra, Coimbra, Portugal
Laura CERREZO PADELLANO, Hospital Universitario La Princesa, Madrid, Spain
Jean CHAVAUDRA, Institut Gustave Roussy, Villejuif, France
Jorge Contreras MARTINEZ, Hospital Carlos Haya, Malaga, Spain
Ovidiu COZA, Institutul Oncologic, Cluj-Napoca, Romania
Ram DAS, Peter McCallum Cancer Institute, Melbourne, Australia
Olga ÉSIK, University of Pécs, Pécs, Hungary
Jacek FIJUTH, Medical University of Łódź, Łódź, Poland
János FODOR, National Institute of Oncology, Budapest, Hungary
Roumen GABROVSKI, Regional Oncological Hospital, Shoumen, Bulgaria
Anna GASIŃSKA, Cancer Center and Institute of Oncology, Kraków, Poland
Alessandro GAVA, Treviso Regional Hospital, Treviso, Italy
Bogdan GLIŃSKI, Cancer Center and Institute of Oncology, Kraków, Poland
Reidar GRENMAR, Turku University Hospital, Turku, Finland
Ákos GULYBÁN, European Organisation for Research and Treatment of Cancer, Brussels, Belgium
Josef HAMMER, Krankenhaus der Barmherzigen Schwestern, Linz, Austria
Robin D. HUNTER, Christie Hospital NHS Trust, Manchester, United Kingdom
Barbara Jereczek FOSSA, European Institute of Oncology, Milano, Italy
Jacek JASSEM, Uniwersyteckie Centrum Kliniczne, Kraków, Poland
Marco KRENGLI, Ospedale Maggiore della Carità, Novara, Italy
Josef KOVAŘIC, University Hospital Královské Vinohrady, Prague, Czech Republic
Jan Willem LEER, University Medical Center, Nijmegen, The Netherlands
Hotimir LEŠNIČAR, Institute of Oncology, Ljubljana, Slovenia
Miguel MACIÀ, Hospital General de Cataluña Barcelona, Spain
Andrzej MACKIEWICZ, Greater Poland Cancer Centre, Poznań, Poland
Tibor MAJOR, National Institute of Oncology, Budapest, Hungary
Ginette MARINELLO, Hospital Henri Mondor, Paris, France
Lena MARINOVA, Oncology Hospital, Sofia, Bulgaria
Janina MARKOWSKA, Poznań University of Medical Science, Poznań, Poland
Michał MICHALAK, Poznań University of Medical Science, Poznań, Poland
Piotr MILECKI, Greater Poland Cancer Centre, Poznań, Poland
Richard F. MOULD, Westminster Hospital, London, UK
Asuncion Hervas MORON, Hospital Ramón y Cajal, Madrid, Spain
Paweł MURAWA, Greater Poland Cancer Centre, Poznań, Poland
Karel ODRÁŽKA, Pardubická krajská nemocnice, Hradec Králové, Czech Republic
Ángelo OLIVEIRA, Instituto Português de Oncologia do Porto EPE, Porto, Portugal
Jan OLOFSSON, Haukeland University Hospital, Bergen, Norway
Antoni Castel MILLÁN, USP Instituto Universitario Dexeus, Barcelona, Spain
Stefano PERGOLIZZI, U.O. Radioterapia Presso Presidio Ospedaliero, Taormina, Italy
Nuno PIMENTEL, Hospital de Santa Maria, Lisboa, Portugal
Ervin B. PODGORSK, Montreal General Hospital, Montréal, Canada
Richard PÖTTER, Allg. Krankenhaus der Stadt Wien, Wien, Austria
Veselina PARVANOV, National Oncological Centre Hospital, Sofia, Bulgaria
Vincenzo RAVO, National Cancer Institute Pascale, Napoli, Italy
Marian REINFUSS, Cancer Center and Institute of Oncology, Kraków, Poland
Vlado ROBAR, Institute of Oncology, Ljubljana, Slovenia
Luis A. Pérez ROMASANTA, Hosp. Gral. de Ciudad Real, Ciudad Real, Spain
Jésus ROMERO FERNÁNDEZ, Departament of Radiation Oncology, Madrid, Spain
Andrzej ROSZAK, Greater Poland Cancer Centre, Poznań, Poland
Angeles ROVIROSA, Hospital Clinic i Universitari, Barcelona, Spain
Pierre SCALLIET, UCL Clinique Univ. St. Luc, Brussels, Belgium
Krzysztof SKŁADOWSKI, Cancer Center and Institute of Oncology, Gliwice, Poland
Jan SKOŁYSZEWSKI, Cancer Center and Institute of Oncology, Kraków, Poland
Pavel SLAMPA, Masaryk Memorial Cancer Center, Brno, Czech Republic
Jan STEJSKAL, Hospital Jihlava, Jihlava, Czech Republic
Grażyna STRYCZYŃSKA, Greater Poland Cancer Centre, Poznań, Poland
Nuno TEIXEIRA, ESC. Sup. Tecnol, Lisboa, Portugal
Paul Van HOUTTE, Institut J. Bordet, Brussels, Belgium
Vaneja VELENIK, Institute of Oncology, Ljubljana, Slovenia
Jacek WACHOWIAK, Poznań University of Medical Science, Poznań, Poland
Michał WALIGÓRSKI, Cancer Center and Institute of Oncology, Kraków, Poland
H. Rodney WITHERS, UCLA School of Medicine, Los Angeles, USA
Mariana YANEVA, Medical Univ-Radio-Isotopen Center, Sofia, Bulgaria
Matjaž ZWITTER, Institute of Oncology, Ljubljana, Slovenia