

## BIOGRAPHICAL SKETCH

NAME: Emilio Bria

POSITION TITLE: Associate Professor of Oncology, M.D.

### EDUCATION/TRAINING

| INSTITUTION AND LOCATION  | DEGREE                       | Completion Date | FIELD OF STUDY                            |
|---|------------------------------|-----------------|---|
| University of Rome 'La Sapienza'  | Medical Full Degree          | 10/1998         | Medicine and Surgery                      |
| University of Rome 'La Sapienza'  | Medical Licence              | 06/1999         | General Medicine Board Certification      |
| Memorial Sloan Kettering Cancer Center, New York                          | Clinical Observer            | 08/2001         | Head-Neck & Genitourinary Cancer          |
| Columbia University, Herbert Irving Comprehensive Cancer Center, New York | Research & Clinical Observer | 09/2001         | Lung Cancer, Methodology of Research      |
| IFO - Regina Elena National Cancer Institute, Rome                        | Medical Oncology Residency   | 11/2002         | Medical Oncology                          |
| University of Rome 'La Sapienza'  | Medical Oncology Fellowship  | 11/2002         | Medical Oncology, Breast, Lung Cancer     |
| IFO - Regina Elena National Cancer Institute, Rome                        | Clinical Researcher          | 01/2011         | Medical Oncology, Methodology of Research |
| University Hospital of Verona   | Staff Physician              | 08/2014         | Medical Oncology                          |
| University Hospital of Verona   | Associate Professor          | Ongoing         | Medical Oncology                          |

### A. Positions and Honors.

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|---------------------|---|
| <i>From 01/2009</i> | Expert Member by the Multinational Association for Supportive Care in Cancer (MASCC) and the European Society for Medical Oncology (ESMO), for the development and establishment of international guidelines on the anti-emetic in oncology |
| <i>From 11/2011</i> | Member of the IASLC (International Association for the Study of Lung Cancer) Publication Committee for the years 2011-2013 and 2013-2015 term   |
| <i>From 01/2013</i> | Member of the Advisory Board (Area Oncology) of the Agenzia Italiana del Farmaco (AIFA) [Italian Regulatory Agency]. In this context, consultant activity for the European Medical Agency [EMA].  |
| <i>From 01/2013</i> | Member of the Ethics Committee for Clinical Trials (CESC) in the provinces of Verona and Rovigo (Resolution No. 689 of 28/09/2013).   |
| <i>From 01/2015</i> | Member of the Lung Cancer Group of the European Organization for Research and Treatment of Cancer (EORTC)   |
| <i>From 01/2015</i> | Co-investigator of the Prognostic Impact of the Molecular Heterogeneity between Primary and Metastatic Breast, Colorectal and Lung Tumors for patients with Oligo-metastatic Disease: Network Project.                                      |
| <i>From 09/2015</i> | Scientific coordinator of the project PRIHTA 2014-00000454 - Veneto Region: Adherence to therapeutic recommendations of the Veneto Oncology Network (ROV) for advanced lung cancer: Development of a Monitoring System.                     |
| <i>From 11/2015</i> | Member of the IASLC (International Association for the Study of Lung Cancer) Membership Committee   |

### Academic and Professional Honors

|                  |  |
|------------------|--|
| <i>1998-2002</i> | Medical Oncology Fellow, University of Rome 'La Sapienza', IFO - Regina Elena National Cancer Institute, Rome.                           |
| <i>2001</i>      | Clinical Observer - Memorial Sloan Kettering Cancer Center, New York (USA), Department of Medicine, Head and Neck/Genitourinary Service. |

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|------------------|--|
| 2001             | Clinical and Research Observer, Herbert Irving Comprehensive Cancer Center, Columbia Presbyterian Medical Center, College of Physicians & Surgeons of Columbia University, Columbia University, New York (USA), Division of Medical Oncology.  |
| 2005, 2006, 2007 | Visiting Physician, Herbert Irving Comprehensive Cancer Center, Columbia Presbyterian Medical Center, College of Physicians & Surgeons of Columbia University, Columbia University, New York (USA), Division of Medical Oncology.  |
| 2007             | The Monter Cancer Center, North Shore-Long Island Jewish Health System, New York, (USA), Division of Hematology and Oncology.  |
| 2002 - 2011      | I.F.O. -National Cancer Institute 'Regina Elena', Rome, Department of Medical Oncology   |
| 2011-2014        | Staff Physician, University Hospital of Verona, U.O.C. Medical Oncology.   |
| 12/2013          | Achievement of the National Scientific Qualification as Associate Professor, Notice 2012 (DD no. 222/2012) pursuant to art. 16 of Law 240/2010, Sector Disciplinary MED06/D3, Blood Diseases, Oncology and Rheumatology [Enable Validity: From 03/12/2013 to 12/03/2017.   |
| 2014 - Ongoing   | Associate Professor of Medical Oncology, Department of Medicine, University of Verona [Activated Courses and Training: Medical Oncology and Palliative care to the Master of Science in Medicine Science at the University of Verona and the Master of Science in Nursing at the University of Verona and at the Claudiana University of Bolzano]. He is now a member and Tutor of the Academic Board of the PhD in Inflammation, Immunity and Cancer at the University of Verona. |

#### **Other Experience and Professional Memberships.**

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|---------|--|
| 10/1998 | AIOM (Italian Association of Medical Oncology) Full Member.                  |
| 01/2001 | ASCO (American Society of Clinical Oncology) Associate Member.               |
| 01/2001 | ESMO (European Society of Medical Oncology) Junior Member.                   |
| 01/2003 | ASCO (American Society of Clinical Oncology) Active-Junior Member.           |
| 01/2006 | ASCO (American Society of Clinical Oncology) Full Member.                    |
| 01/2003 | IASLC (International Association for the Study of Lung Cancer) Full Member.  |
| 01/2005 | ESMO (European Society of Medical Oncology) Full Member.                     |
| 01/2005 | MASCC (Multinational Association for Supportive Care in Cancer) Full Member. |

#### **Honors.**

|             |   |
|-------------|---|
| 11/2007     | Winner of the International Award:' The Innovators in Breast Cancer Award, 2006-2007', New York, U.S., Global Future Forum on Breast Cancer interactive skills program for outstanding young clinicians and scientists working in the oncology arena, awarded by Prof. Walter Jonat, MD, on Behalf of the Steering Committee (Prof. Matti Aapro, MD, Switzerland, Prof. Jose Baselga, MD, USA; Prof. Stephen Johnston, MD, UK; Prof. Mark Lippman, MD, USA).  |
| 06/2007     | Winner of the 1st Prize for excellence 'Prof. Antonio Caputo', as the best young researcher in the field of Clinical Oncology, established by the Scientific Director, 'Regina Elena' National Cancer Institute, Rome, Italy.   |
| 12/2004     | Winner of the National Award 'Fondazione Federico Calabresi', for the year 2004, prize granted for young author of a scientific publication with a high Impact Factor appearance on the international 'peer-reviewed' journals.   |
| 09/2000     | Winner of the Award for excellence 'Raffaele Bastianelli', granted for abroad training experience in institutions of international scientific importance, established by the University of Rome 'La Sapienza'.<br>[The grant was spent at: Memorial Sloan Kettering Cancer Center, New York (USA), Department of Medicine, Head and Neck / Genitourinary Service & Columbia University, New York (USA), Herbert Irving Comprehensive Cancer Center, Columbia Presbyterian Medical Center, College of Physicians & Surgeons of Columbia University, Division Of Medical Oncology, Lung Cancer & Gastrointestinal Unit and Clinical Immunotherapy Unit)]. |
| 1994 - 1997 | Winner of merit scholarships established by ADISU, University of Rome 'La Sapienza'.  |
| 1993, 1994  | Winner of research prizes by the University of Rome 'La Sapienza', Faculty of Medicine and Surgery, Department of Experimental Medicine and Pathology, and Medical Genetics, the Department of Human Anatomy.   |

Author of 187 scientific articles published in peer-reviewed international journals (H-Index: Google Scholar: 35; Scopus: 28; Citations: Google Scholar: 4651; Scopus: 3087. Author of 28 book chapters in oncology. Editorial board Member: Annals of Oncology, and others. Reviewer for national/international research projects (UICC, ATS, INCa, CIR2C, ESTAG). Presented original research/educational lectures at national/international congresses (ASCO, IASLC, ESMO, MASCC, FECS-ECCO, AIOM). P.I., Co- and Sub-investigator of a series of Phase III trials with chemotherapeutics/supportive, innovative treatment strategies, and targeted agents.

## **B. Contributions to Science.**

The scientific activity can be grouped into five topics, as follows:

- **Design and conduction of original early-phases (Phase I-II) studies in the specific context of lung, breast and other solid cancer:** Experience in the Optimal 2-stage Simon's design with both chemotherapy and targeted agents for Phase II, and in the 3+3 design for Phase I. Experience in design prospective Phase II, according to clinical and molecularly selected categories for the specific Analysis of Predictive factors for the activity of targeted agents.
- **Definition and validation of prognostic models integrating clinical and molecular factors and analysis of predictive bio-molecular factors of activity in lung, breast, and other solid tumors:** Analysis of co-determinants of response and definition of predictive factors of activity to targeted agents according to molecular analysis of patients with different technologies (IHC, FISH, CISH and NGS); Analysis of Molecular Heterogeneity (with NGS) as predictive factor of activity of targeted agents; definition and validation (internal and external) of risk classes according to both clinical and molecular (known and innovative) factors in large patients series.
- **Methodology of clinical trials and Development of international guidelines and expert panel in solid tumors including Lung/Breast Cancer and supportive care:** Definition of development of surrogate end-point; Development of international guidelines for emesis in oncology and treatment in specific patients' subgroup [2-3]; Evaluation of safety issues of targeted agents in breast cancer.
- **Analysis of investigational molecular pathways in lung, breast and other solid tumors:** Identification of different cytogenetic subgroups of patients in the context of HER2 positive breast cancer; Analysis of the FGFR-1 signaling; Analysis of the cytogenetic abnormalities determining PI3KCA/mTOR dysregulation (Chromosome 3) with FISH and aCGH; Analysis of the Beta-Tubulin and c-MYC expression.
- **Development of Meta-analysis and Systematic Reviews in Breast cancer and other Solid tumors:** Definition of strategies in specific breast cancer subgroups; Optimization of drug scheduling; Clinical impact and magnitude of benefit of targeted agents; Evaluation of side effects of aromatase inhibitors.

**Complete List of Published Work:** <http://www.ncbi.nlm.nih.gov/pubmed/?term=Bria+E>

## **C. Support and Funding.**

### **Ongoing Research Support**

- Research Project [5 years (3 + 2): Start date: 01/2018] Italian Association for Cancer Research (AIRC), Investigator Grant (IG) 2017, n. 20583: 'RICTOR/mTOR and FGFR/FRS2 as drivers of prognosis and potential therapeutic targets in squamous cell lung cancer' [Role: Principal Investigator and Project Manager].
- Research Project [1 year: Start date: 09/2015]: DGR 1092/18-8-2015: PRIHTA 2014-00000454 - Veneto Region: Adherence to therapeutic recommendations of the Veneto Oncology Network (ROV) for advanced lung cancer: Development of a Monitoring System [Role: Scientific coordinator & Principal Investigator].
- Research Project [2 years: Start date: 01/2015] Prognostic Impact of the Molecular Heterogeneity between Primary and Metastatic Breast, Colorectal and Lung Tumors for patients with Oligo-metastatic Disease: Network Project [Role: Co-Investigator; PI: Giampaolo Tortora].
- Research Project [3 + 2 years: Start date: 01/2012 – Additional 2 years granted]: Italian Association for Cancer Research (AIRC), 5X1000: Innovative tools for risk assessment and early diagnosis of pancreatic cancer [Role: Co-Investigator, PI: Aldo Scarpa].

### **Completed Research Support:**

- Research Project [3 years: Start date: 01/2014]: Italian Association for Cancer Research (AIRC), 2013, n. 14282: Prognostic relevance of Potentially druggable molecular pathways driving for resected squamous cell lung carcinoma [Role: Principal Investigator and Project Manager].
- Research Project [2 years: Start date: 07/2015]: International Association for the Study of Lung Cancer (IASLC) Fellowship Award, 2015: Immune checkpoint regulators and driving gene mutations as outcome predictors for resected squamous cell lung carcinoma [Role: Principal Investigator, Fellow: Sara Pilotto].
- Research Project [2011]: Italian Association for Cancer Research (AIRC), 5X1000: Development of effective cancer therapies based on functional proteomics and cancer stem cell targeting [Role: Co-Investigator, PI: Ruggero De Maria].
- Finalized Research Project - Ministry of Health, 2006: A randomized phase III trial of preoperative chemotherapy versus postoperative cisplatin and gemcitabine in non-small cell lung cancer cells [Role: Coordinator Unit # 8].
- Finalized Research Project -Ministry of Health Funds 2009: Integration of new factors prognostic / predictive clinical and molecular -based risk stratification and selection of treatment: the silent revolution of non-small cell lung cancer (NSCLC) [Role: Co-Investigator, PI : Michele Milella].
- Research Project [3 + 2 years: Start date: 01/2012]: Italian Association for Cancer Research (AIRC), 5X1000: Application of Advanced Nanotechnology in the Development of Innovative Cancer Diagnostics Tools [Role: Co-Investigator, PI: Giuseppe Toffoli].