

**VASILIKI PEPPA, M.Sc.**  
Ph.D. Candidate,  
Medical Physics Laboratory, Medical School, University of Athens

### **Curriculum Vitae**

#### **Education**

- 2012- : Ph.D., Medical School, University of Athens  
2014: Professional License to practice Medical Physics  
2010: M.Sc. in Medical Physics, Interuniversity-Interdepartmental Master Program in Medical Physics (Grade: 9.53)  
2007: B.Sc. in Physics, Physics Department, University of Athens (Grade: 7.76)  
2001: Piano Diploma, Piano School, Athens Conservatory (Grade: «Excellent unanimously and 2<sup>nd</sup> Prize unanimously»)

#### **Employment:**

- 2012 - : Researcher, Medical Physics Laboratory, Medical School, University of Athens  
2010-2011: Salaryless scientific associate in Radiotherapy and Oncology Department of Anticancer and Oncology Hospital of Athens «St. Savvas».  
2008– 2009: Medical Physics Intern, University Hospital of Heraklion

#### **Research interests**

- Development and implementation of quality assurance procedures in brachytherapy treatment planning systems
- Verification of clinical dose calculation in brachytherapy, using Monte Carlo simulation
- Comparison and evaluation of modern radiotherapy techniques using biological parameters

#### **Teaching responsibilities**

- Radiation protection practice: undergraduate Physics students, University of Athens
- Radiation Technology IV: students of “Medical Imaging Devices” Department, Public I.E.K. of Galatsi, Athens
- Medical Physics: postgraduate courses on Medical Physics, University of Crete

#### **Theses**

- «Development of algorithms and quality assurance procedures for dose performance of brachytherapy applications», Ph.D. thesis, University of Athens, 2012-Today
- «Comparison of irradiation techniques in 3D conformal radiotherapy: Evaluation of dose and corresponding radiogenic risk at organs-at-risk», M.Sc. thesis, University of Crete, 2010
- «Investigating the imaging ability of sources emitting multiple particles per decay in nuclear medicine», B.Sc. thesis, University of Athens, 2007

#### **Participation in courses**

- ESTRO School, Modern Brachytherapy Techniques, Athens, Greece, 24-27 March, 2013
- Intensive Programme on Neuro MRI, European Master in Molecular Imaging (EMMI), Antwerp, Belgium, 8-17 November, 2010

- PET Imaging Intensive Programme, European Master in Molecular Imaging (EMMI), Saclay, France, 25 May-5 June, 2009

### Participation in research projects

As a member of the research team:

- “Prospective evaluation and end-user oriented tools to guide the brachytherapy community through a smooth transition to model based, individualized treatment planning dosimetry”  
Source: Research Funding Program: Aristeia, co-financed by the European Social Fund–ESF and Greek national funds through an Operational Program of the National Strategic Reference Framework–NSRF. Start-End: 2012-2015
- “A comparison of current and next generation treatment planning systems in terms of clinical significance in brachytherapy for cancer treatment”  
Source: Bilateral E&T Greece-Hungary cooperation. Start-End: 2012-2014

### Awards

- PhD degree fellowship: “IKY fellowships of excellence for postgraduate studies in Greece-Siemens Program”

### Announcements in conferences

- A QA procedure for brachytherapy TPS employing model based dose calculations, based on Monte Carlo simulations and end user oriented tools  
V. Peppas, E. Pappas, E. Pantelis, P. Papagiannis  
8<sup>th</sup> European Conference on Medical Physics, ECMP 2014, Athens, Greece, September 11-13, 2014
- A retrospective dosimetry comparison of TG43 and a commercially available MBDC algorithm for an APBI brachytherapy patient cohort  
K. Zourari, V. Peppas, A. Herein, T. Major, P. Papagiannis  
8<sup>th</sup> European Conference on Medical Physics, ECMP 2014, Athens, Greece, September 11-13, 2014
- A retrospective dosimetry comparison of TG43 and a commercially available MBDC algorithm for an APBI brachytherapy patient cohort  
K. Zourari, V. Peppas, A. Herein, T. Major, P. Papagiannis  
6<sup>th</sup> Alpe-Adria Medical Physics (AAMP) meeting, Budapest, Hungary, May 20-31, 2014
- A comparison of conventional and contemporary dosimetry for a brachytherapy cohort of 68 APBI patients  
V. Peppas, K. Zourari, E. Pappas, E. Pantelis, P. Papagiannis  
The International Conference of Medical Physics, ICMP 2013, Brighton, UK, 1-4 September, 2013
- Tissue segmentation significance for individualized <sup>192</sup>Ir brachytherapy dosimetry  
V. Peppas, K. Zourari, E. Pantelis, P. Papagiannis  
2<sup>nd</sup> ESTRO forum, Geneva, Switzerland, 19-23 April, 2013
- An Octree-based indexing method for Monte Carlo dosimetry in brachytherapy  
V. Lahanas, V. Peppas, E. Pantelis, P. Papagiannis  
2<sup>nd</sup> ESTRO forum, Geneva, Switzerland, 19-23 April, 2013
- Σύμμορφη ακτινοθεραπεία για τον καρκίνο του μαστού: Επιλογή του βέλτιστου πλάνου θεραπείας  
B. Πέππας, M. Μαζωνάκης, Σ. Κάχρης, I. Δαμηλάκης  
15<sup>ο</sup> Παγκρήτιο Ιατρικό Συνέδριο, Χανιά Κρήτης, 29-31 Οκτωβρίου, 2010
- Συγκριτική αξιολόγηση τεχνικών ακτινοβόλησης στην τρισδιάστατη σύμμορφη ακτινοθεραπεία του καρκίνου του στομάχου  
B. Πέππας, M. Μαζωνάκης, Σ. Κάχρης, I. Δαμηλάκης  
15<sup>ο</sup> Παγκρήτιο Ιατρικό Συνέδριο, Χανιά Κρήτης, 29-31 Οκτωβρίου, 2010

## **Publicatons**

- E. Pantelis, V. Peppas, V. Lahanas, E. Pappas, P. Papagiannis, “BrachyGuide: a brachytherapy-dedicated DICOM RT viewer and interface to Monte Carlo simulation software”, J Appl Clin Med Phys. 2015; 16(1)
- K. Zourari , V. Peppas , F. Ballester , F. A. Siebert, P. Papagiannis, “Brachytherapy structural shielding calculations using Monte Carlo generated, monoenergetic data”, Med Phys. 2014; 41(4)
- V. Peppas, M. Mazonakis, S. Kachris, C. Varveris, Damilakis J, “Conformal radiotherapy of prostate cancer: what is the proper technique for sparing organs-at-risk?”, Oncol.Rep 2010; 23(6):1663-8