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## Pathophysiology of thoracic irradiation

Ghobadi, Ghazaleh

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## CURRICULUM VITAE

### Education:

- May 2013** Postdoc at Nederlands Cancer Institute (NKI)
- Sep 2007 – March 2013** PhD of Medical Sciences, Department of Radiation Oncology and Department of Cell Biology, University Medical Center Groningen (UMCG), Groningen, the Netherlands
- 2003 – 2006** MSc, Medical Physics, Tehran University of Medical Sciences, Tehran, Iran
- 1998 – 2003** Bachelor of Sciences, Physics (Solid State), Tehran University of Teacher Training, Tehran, Iran

### Research Experience:

- Sep 2007 – Present** Department of Radiation Oncology and Department of Cell Biology, University Medical Center Groningen (UMCG), Groningen, the Netherlands
- Position: Researcher
- Supervision of 4 MScs, 1 MD and 4 BScs students
- Sep 2005 – Sep 2007** Pharmacology Laboratory, Department of Pharmacology and Toxicology, Tehran University of Medical Sciences, Tehran, Iran
- Position: Research Assistant
- June 2004 – Aug 2005** Research Center for Sciences and Technology in Medicine (RCSTIM), Medical Informatics and Image/Signal Processing Research Group, Tehran, Iran
- Position: Research Assistant

## Appendix

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**Sep 1999 – Sep 2007**      Research Group (Mehbang), Department of  
Physics, Tehran University of Teacher Training, Tehran, Iran

Position: Researcher

### **Teaching Experience:**

**June 2005 – Sep 2007**      Kish Language Institute, Tehran, Iran

Position: English Teacher

**Oct 2003- June 2004**      Medical Physics Laboratory, Department of  
Medical Physics, Tehran University of Medical Sciences, Tehran, Iran

Position: Instructor

### **Research Interests:**

Non-invasive assessment of organ dysfunction/damage, Medical imaging, Radiobiology of the tumors and normal tissue, Cell-based Therapy, Vascular biology, Radioprotectors

### **Conferences:**

R.P. Coppes, **G. Ghobadi**, S. van der Veen, H. Faber, B. Bartelds, R.A. de Boer, M.G. Dickingson, S. Brandenburg, J.A. Langendijk, P. van Luijk; “Cardio-pulmonary consequences of thoracic irradiation in rats”. Proffered Paper, ESTRO31, May 2012, Barcelona, Spain

E. M. Wiegman, **G. Ghobadi**, J. A. Langendijk, R. P. Coppes, P. van Luijk; “Clinical test of a novel method for the assessment of radiation damage in the lung”. ESTRO31, May 2012, Barcelona, Spain

**G. Ghobadi**, E. M. Wiegman, J. A. Langendijk, R. P. Coppes, P. van Luijk; “Clinical test of a novel method for the assessment of radiation damage in the lung”. NVRB meeting, Noord wijk, The Netherlands, April 2012

S.J. van der Veen, **G. Ghobadi**, G.W. Bosman, H. Faber, J.A. Langendijk, P. van Luijk, R.P. Coppes. “ACE-inhibition reduces radiation pneumonitis by ameliorating acute cardiac damage”. Oral presentation, ICTR-PHE, Geneva, Switzerland, March 2012

**G. Ghobadi**, S. J. van der Veen, B. Bartelds, R. A. de Boer, J. R. de Jong, S. Brandenburg, R. M. F. Berger, J. A. Langendijk, R. P. Coppes, P. van Luijk; “Heart-Lung interaction in the development of radiation pneumonitis”. Travel award, ICRR Warsaw, Poland, Sep 2011

S.J. van der Veen, **G. Ghobadi**, G.W. Bosman, H. Faber, J.A. Langendijk, R.P. Coppes, P. van Luijk. “Endothelial cell loss initiates the development of early pulmonary radiation-induced vascular remodeling”. Travel award, ICRR Warsaw, Poland, Sep 2011

**G. Ghobadi**, S. J. van der Veen, H. Wopken, R. A. de Boer, J. R. de Jong, S. Brandenburg, J. A. Langendijk, R. P. Coppes, P. van Luijk; “Lung and heart collaborate in early radiation-induced cardiac diastolic function impairment”. PREVENT meeting, Brussels, Belgium, March 2011

S.J. van der Veen, **G. Ghobadi**, G.W. Bosman, H. Faber, J.A. Langendijk, P. van Luijk, R.P. Coppes. “Development of early pulmonary radiation-induced vascular damage in rats and mice”. PREVENT meeting, Brussels, Belgium, March 2011

**G. Ghobadi**, S. J. van der Veen, H. Faber, B. Bartelds, M.G. Dickinson, S. Brandenburg, R. M. F. Berger, J. A. Langendijk, R. P. Coppes, P. van Luijk; “Irradiated-volume dependent pulmonary vascular remodeling determines induction of early lung function loss”. Proffered Paper, PREVENT meeting, Brussels, Belgium, March 2011

**G. Ghobadi**, S. J. van der Veen, R. A. de Boer, J. R. de Jong, S. Brandenburg, J. A. Langendijk, R. P. Coppes, P. van Luijk; “Heart-lung interaction in early radiation-induced cardio-pulmonary damage”. NVRB meeting, Utrecht, The Netherlands, March 2011

S.J. van der Veen, **G. Ghobadi**, G.W. Bosman, H. Faber, J.A. Langendijk, R.P. Coppes,

## Appendix

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P. van Luijk. “Endothelial cell loss initiates the development of early pulmonary radiation-induced vascular damage”. Klaas Breur Fonds Award, NVRB meeting, Utrecht, The Netherlands, March 2011

**G. Ghobadi**, S.J. van der Veen, H. Faber, M.G. Dickinson, B. Bartelds, S. Brandenburg, J. A. Langendijk, R. P. Coppes, P. van Luijk; “The role of vascular damage in the development of radiation pneumonitis”. RRS, Hawaii, USA, September 2010

**G. Ghobadi**, S.J. van der Veen, H. Faber, M.G. Dickinson, B. Bartelds, S. Brandenburg, J. A. Langendijk, R. P. Coppes, P. van Luijk; “The role of vascular damage in the development of radiation pneumonitis”. Klaas Breur Fonds Award, NVRB meeting, Utrecht, The Netherlands, April 2010

**G. Ghobadi**, H. Faber, M. K. Stam, J. M. Schippers, S. Brandenburg, J. A. Langendijk, R. P. Coppes and P. van Luijk; “Reduced cardiac function enhances early pulmonary function loss after thoracic irradiation”. Klaas Breur Fonds Award, NVRB meeting, Noord wijk, The Netherlands, April 2009

**G. Ghobadi**, H. Faber, Jacobus M. Schippers, S. Brandenburg, J. A. Langendijk, R. P. Coppes and P. van Luijk; “A novel method for quantifying radiation-induced local damage in rat lung from computed tomography”. PREVENT meeting, Brussels, Belgium, Jan 2009

**G. Ghobadi**, H. Faber, J. M. Schippers, S. Brandenburg, J. A. Langendijk, R. P. Coppes and P. van Luijk; “Quantification of radiation-induced local damage in rat lung from computed tomography”; ESTRO27, Gothenburg, Sweden, Sep 2008

**G. Ghobadi**, G. Karimian, M. Ghazi Khansari, A. Shirazi; “Melatonin Ameliorates Hepatic Toxicity in Irradiated Rat Liver”. ISCOMS, Groningen, The Netherlands, 2006

**G. Ghobadi**, G. Karimian, M. Ghazi Khansari, A. Shirazi; “Melatonin Ameliorates Hepatic Toxicity in Irradiated Rat Liver”. World Congress on Medical Physics and

Biomedical Engineering, Seoul, Korea, 2006

### **Publications:**

E. M. Wiegman\*, **G. Ghobadi\***, J. A. Langendijk, R. P. Coppes, P. van Luijk; "Clinical test of a novel method for the assessment of radiation damage in the lung". *Int J Radiat Oncol Biol Phys.* 2012; Under review. \*Contributed equally.

**G. Ghobadi**, S. J. van der Veen, B. Bartelds, R.A. de Boer, M. Dickinson, J. R. de Jong, H. Faber, M. Niemantsverdriet, S. Brandenburg, R. M.F. Berger, J. A. Langendijk, R. P. Coppes, P. van Luijk; "Physiological interaction of heart and lung in thoracic irradiation" *Int J Radiat Oncol Biol Phys.* 2012 Sep; doi: 10.1016/j.ijrobp.2012.07.2362.

**G. Ghobadi**, B. Bartelds, S. J. van der Veen, M.G. Dickinson, S. Brandenburg, R. M. Berger, J. A. Langendijk, R. P. Coppes, P. van Luijk; "Lung irradiation induces pulmonary vascular remodeling resembling pulmonary arterial hypertension". *Thorax.* 2012 Apr;67(4):334-41.

**G. Ghobadi**, L. Hogeweg, H. Faber, J. M. Schippers, S. Brandenburg, J. A. Langendijk, R. P. Coppes and P. van Luijk; "Quantifying local radiation-induced lung damage from computed tomography". *Int J Radiat Oncol Biol Phys.* 2010 Feb 1;76(2):548-56.

G. Karimian, A. Mohammadi-Karakani, M. Sotoudeh, M. Ghazi-Khansari, **G. Ghobadi**, B. Shakiba; "Attenuation of hepatic fibrosis through captopril and enalapril in the livers of bile duct ligated rats". *Biomed Pharmacother.* 2008 Jun;62(5):312-6.

A. Shirazi, **G. Ghobadi** and M. Ghazi-Khansari; "A Radiobiological Review on Melatonin: A Novel Radioprotector". *J Radiat Res.* 2007 Jul;48(4):263-72.