

## **Curriculum Vitae**

**HANNA ISAKSSON, Ph.D.**

### **Higher education qualification:**

2003 M.Sc., Chemical Engineering, Material Science, Uppsala University, Sweden

### **Doctoral degree:**

2007/11/26 Ph.D., Biomedical Engineering, Eindhoven University of Technology, the Netherlands.  
*Title:* Mechanical and mechanobiological influences on bone fracture repair - identification of important cellular influences. *Supervisors* Prof Rik Huiskes & Keita Ito

### **Postdoctoral position:**

2008 - 2011 Biophysics of Bone and Cartilage, Department of Applied Physics, University of Eastern Finland, Kuopio, Finland: *Head of group:* Prof Jukka Jurvelin (3 years)

### **Qualification as Docent:**

2010 Docent, Biomechanics, University of Eastern Finland, Kuopio, Finland.

2011 Docent, Solid Mechanics, Lund University, Sweden.

### **Current position, appointment and time for research:**

2014- *Associate Professor, University lecturer,* Department of Biomedical Engineering, Lund University. 80 % research and 20% teaching.

### **Previous positions and periods of appointment:**

2011-2013 Assistant Profesor (Swe: bit lektor), Div. Solid Mechanics, Lund University (3 years)

2008-2011 Post doctoral researcher, Department of Applied Physics, University of Eastern Finland, Kuopio, Finland (3 years).

2003-2007 Research Assistant, Mechanobiology, AO Research Institute, AO Foundation, Davos, Switzerland (4 years, 3 months).

2003-2007 Ph.D. student, Biomedical Engineering, Eindhoven University of Technology, The Netherlands (4 years, 3 months).

### **Interruptions in research:**

2013-2015 Maternity leave (14 months part time)

### **Supervision of postdoctoral fellows, doctoral- and degree students:**

*Postdoctoral fellows: Lund University (5)*

- Sophie Le Cann (Ph.D.) 2015-2016; *Tomographic imaging of bone damage mechanisms*
- Hanifeh Khayyeri (Ph.D.) 2013-2014; *Functional imaging of osteoarthritis*
- Christina Perdikouri (Ph.D.) 2012-2014; *Bone quality assessment*
- Marko Matikainen (Ph.D.) 3+3 months, 2011, 2014; *Modeling of the Achilles tendon*
- Sami Väänänen (Ph.D.) 2015; *Shape modeling for osteoporosis prediction*

*Graduated doctoral students: Univ. of Eastern Finland (5), Lund University (1)*

- Mikael Turunen (Ph.D.) 2013: Principal supervisor; *Spectroscopic characterization of bone*
- Inari Tamminen (M.D., Ph.D.) 2013: Co-supervisor; *Pediatric & adult osteoporotic patients*
- Yevgeniya Kobrina (Ph.D.) 2014: Co-supervisor; *Clustering bone and cartilage tissues*
- Sami Väänänen (Ph.D.) 2014: Co-supervisor; *Statistical shape modeling of bone*
- Markus Malo (Ph.D.) 2014: Co-supervisor; *Ultrasound modeling of bone*

- Per Bosemark (M.D., Ph.D.) 2014: Co-supervisor; *Modulating bone healing with pharma drugs*
- Ongoing doctoral students:** *Lund University (3), Univ. Eastern Finland (1), Oxford University (1)*
- Neashan Mathavan (M.Sc.) Principal advisor; *Bone quality measurements, fracture repair*
  - Lorenzo Grassi (M.Sc.) Principal advisor; *Mechanical modeling of bone*
  - Anna Gustafsson (M.Sc.) Principal advisor; *Multiscale modeling of bone damage*
  - Tong Xiaoyu (M.Sc. Medicine), Co-supervisor; *Bone histomorphometry analysis*
  - Nazri Bajuri (M.Sc.), Co-supervisor; *Mechanical modeling of tendon*
- Supervised M.Sc. degree students:** *Lund University (7) and Univ. of Eastern Finland (5)*
- G. Longo 2015. A Gustafsson, A Wingård, 2014. A Thesleff, N Ramirez, M Ahlgren, 2013; E Fågelberg, 2012. V Prantner, M Turunen, S Pääkkö, M Malo, 2010; M Małkiewicz, 2009

### **Other information of importance to the application:**

#### ***Most important grants as principal applicant***

- 2015 Swedish Research Council: Young project grant (3 600 000 SKr / 4 year)
- 2014 Swedish Foundation Strategic Research, Career development grant (6 000 000 SKr/5 years)
- 2011 Swedish Research Council: Young project grant (3 200 000 SKr for 4 years)
- 2011 VINNMER Int. qualification grant, VINNOVA, Sweden. (2 250 000 SKr for 3 years)
- 2011 European Commission, Marie Curie Career integration grant, (100 000 € for 4 years )
- 2007 European Commission, Marie Curie Intra-European fellowship (175 000 €/ 2 years).

#### ***Professional affiliations and services***

##### *Professional Appointments*

- Elected to the council for *European Society of Biomechanics* (2012-2016).
- Appointed to board for *Center for Biomechanics at Lund University* (2013-2016).
- Advisory panel, *Imaging of 3D structures-research graduate school*, Lund University (2015- )
- Member of *Research in Osteoarthritis Development*: One of five creative research environments appointed by Faculty of Medicine, LU, in competition (ranked #2 of 34).

##### *Reviewer assignments*

- Journals (28 journals, ~15/year), incl Nature comm., Scientific Reports, JBMR, Bone, JOR; Grant proposals (6, incl Canada, Belgium, Netherlands, Austria, Switzerland); Conferences (8).

##### *Chairmanship at conferences*

- ASME Bioengineering conference, USA. 2012; European Society of Biomechanics 2008-2014

##### *Served as opponent/ examination committee (12)*

- Opponent/external examiner during doctoral thesis (5)
- Opponent/discussion leader during licentiate thesis or qualifying exam (3)
- Examination/grading committee (4)
- Incl universities in Sweden, Norway, Denmark, Finland, Ireland, Australia.

***Invited keynote lectures***, 19 conferences and workshops in medicine, engineering, physics, chemistry, solid mechanics and biomechanics. Including: *World Congress of Biomechanics*, Boston, 2014. *Nordic X-Ray Science Days*, Lund 2014; *26th Conference of European Colloid and Interface Society*, Malmö 2012. *IV International conference on Tissue Engineering*, Lisbon, 2015; *Swedish Vibrational Spectroscopy* Gothenburg, 2015; *Biomedical and Life Science Application of Synchrotron Radiation*, Oulu, Finland 2015.