



Pieter-Paul Vergroesen was born on the 15th of October, 1986 in Amsterdam. After graduating high school (Bilingual VWO, Berlage Lyceum, Amsterdam, *cum laude*) in 2005, he studied medicine at the Vrije Universiteit in Amsterdam. During his studies in 2008,

he became involved in spine research through a one-year research internship within the PhD project of dr. R.J. Kroeze, "Adipose stem cells on a biodegradable polymer for spinal fusion - pre-clinical studies", at the department of orthopaedic surgery at the VU University medical center (head of the department: prof.dr. B.J. van Royen).

In 2010, he aided in the research project of C. Hohaus, on the effect of different BMP-2 concentrations on spinal fusion in a sheep model, at the Translational Center for Regenerative Medicine in Leipzig, Germany. During this second research internship he also participated as an intern at the department of neurosurgery at the BG-Kliniken Bergmannstrost in Halle, Germany (head of the department: prof.dr. H.J. Meisel). After his graduation as a medical doctor in 2012, he enrolled in the PhD project that would lead to this thesis (supervisors: prof.dr. B.J. van Royen and prof.dr.ir. Th.H. Smit).

His PhD project has resulted in several international publications and presentations at international conferences, the award for best fundamental research at the annual meeting of the Dutch Orthopaedic Society (NOV) in 2015, and two memorable scientific exchanges investigating novel surgical techniques in large animal models to both Padua, Italy and Tehran, Iran. After he finished writing this thesis in May 2015, he worked as an orthopaedic surgery resident at the Medisch Centrum Alkmaar (head of the department: dr. B.J. Burger). Currently, he has started his general surgical training at the Medisch Centrum Alkmaar (head of the department: dr. W.H. Schreurs), as a part of his orthopaedic surgery residency programme.

Intervertebral Disc Biomechanics

Long-Term Axial Loading Studies

Pieter-Paul A. Vergroesen