FWF Der Wissenschaftsfonds.

Doctoral College
Metabolic & Cardiovascular Disease

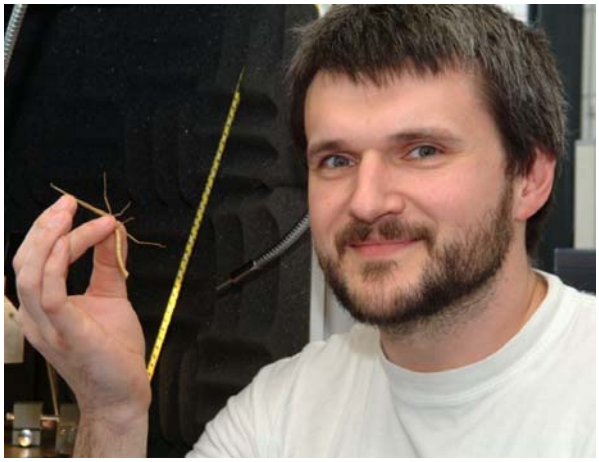
Medical University of Graz

UNI GRAZ TU Graz Graz University of Technology

MODULATION OF CADHERIN FUNCTION BY EXTRACELLULAR IONS

GUEST LECTURE by

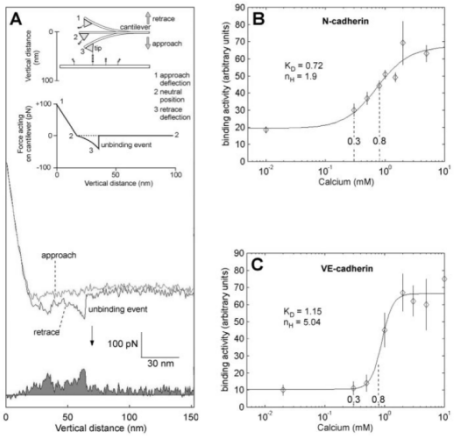
Prof. DI Dr. Werner Baumgartner



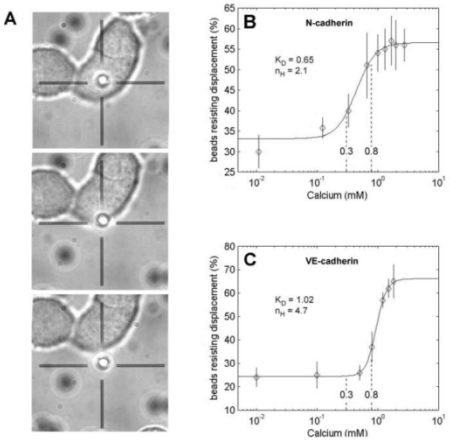
Institute of Medical Mechatronics, Johannes Kepler University Linz, Austria

Tuesday, 11.02.2014
15:00

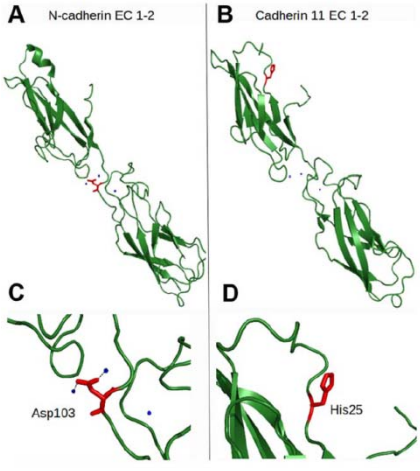
SR 07.11, Preclinics, Harrachgasse 21, 1st floor, MUG



Ca^{2+} dependency of N-cadherin and VE-cadherin binding probed with AFM.

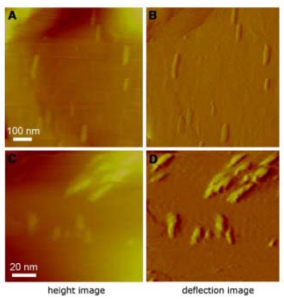


Ca^{2+} dependency of N-cadherin and VE-cadherin binding probed by laser tweezer.

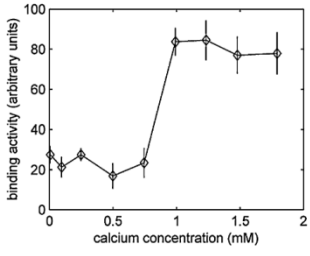


Structure of EC 1-2 of N-cadherin and cadherin-11.

Ca^{2+} dependency of N-cadherin function probed by laser tweezer and atomic force microscopy.
Baumgartner et al. (2003) J Neurosci 23(35):11008-14



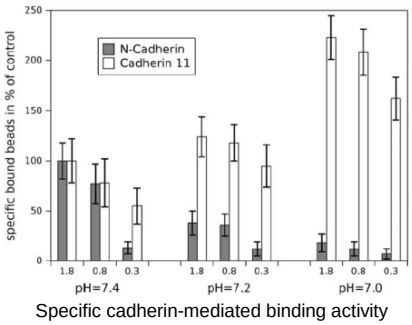
Ca^{2+}-dependent conformational changes of Dsg1-Fc.



Ca^{2+} dependence of Dsg1-Fc trans-interaction.

Different pH-dependences of the two synaptic adhesion molecules N-cadherin and cadherin-11 and the possible functional implication for long-term potentiation.
Baumgartner et al. (2013) Synapse 67:705-15

Imaging and force spectroscopy on Demoglein 1 using atomic force microscopy reveal multivalent Ca^{2+}-dependent, low-affinity trans-interaction.
Waschke et al. (2007) J Membrane Biol 216:83-92



Specific cadherin-mediated binding activity investigated by laser tweezer experiments by combined reduction of Ca^{2+} and pH.