

Fishing for happiness

Das Glück an der Nano-Angel

Andreas Karner
Institut für Biophysik
Wilhelm Macke Award, 09.04.2015



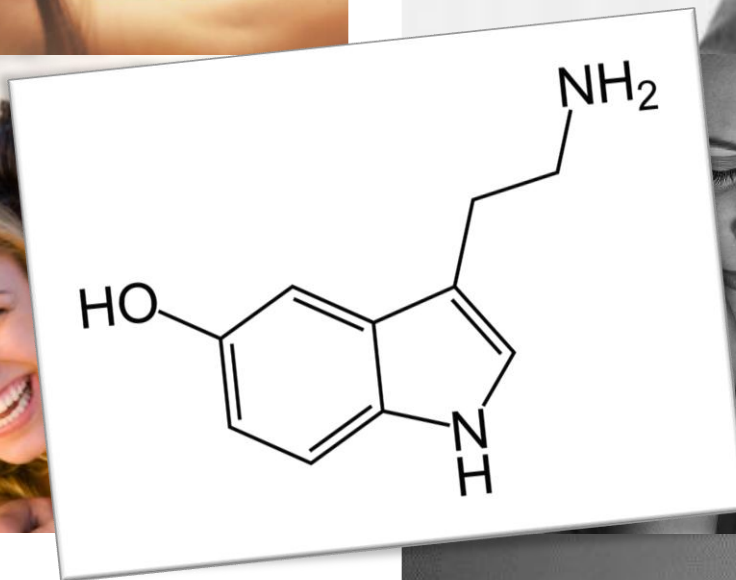
Biophysik?



Was? Protein

Warum? Krankheiten

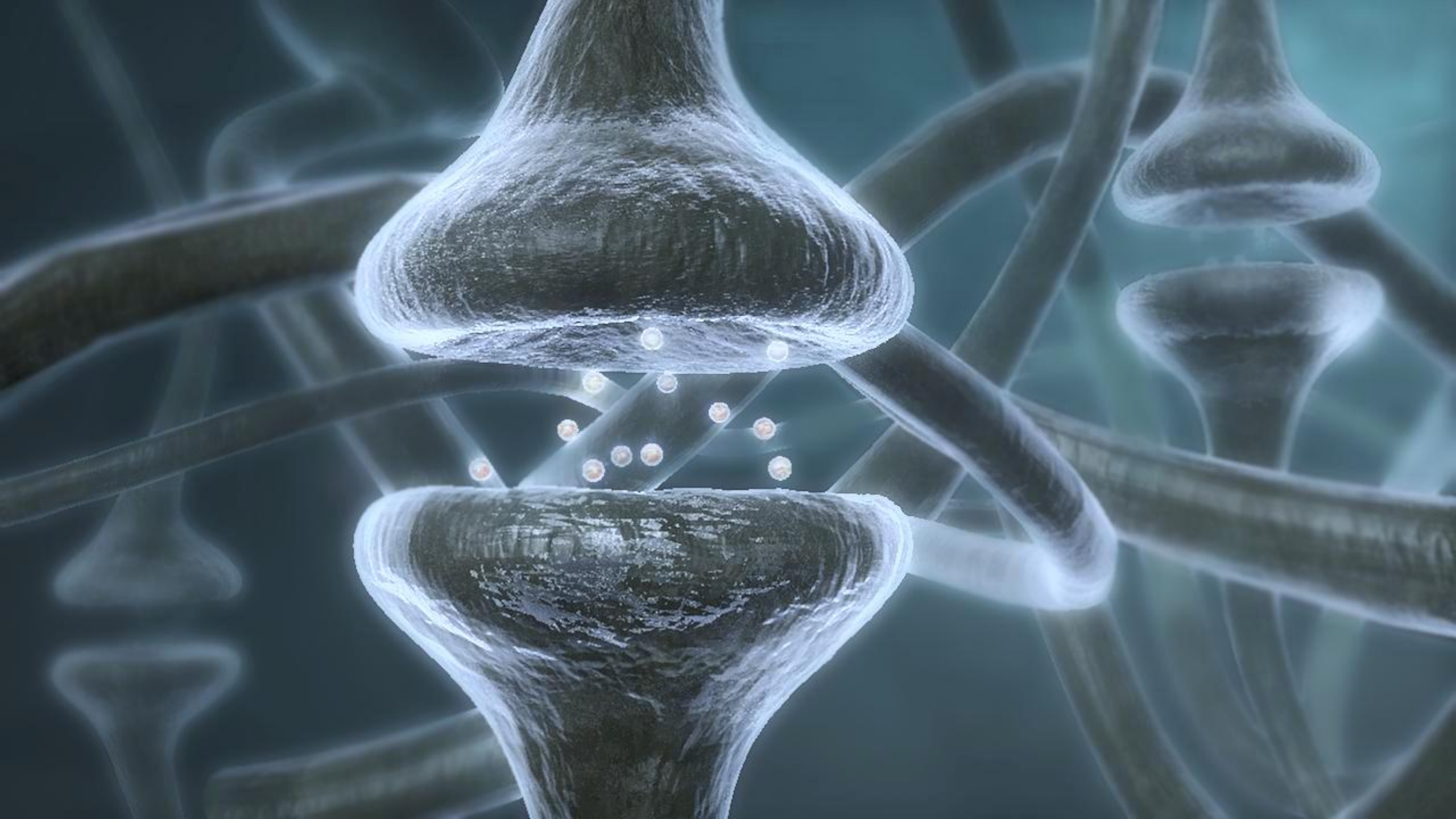
Wie? Nano-Angel





1 : 1 000 000 000

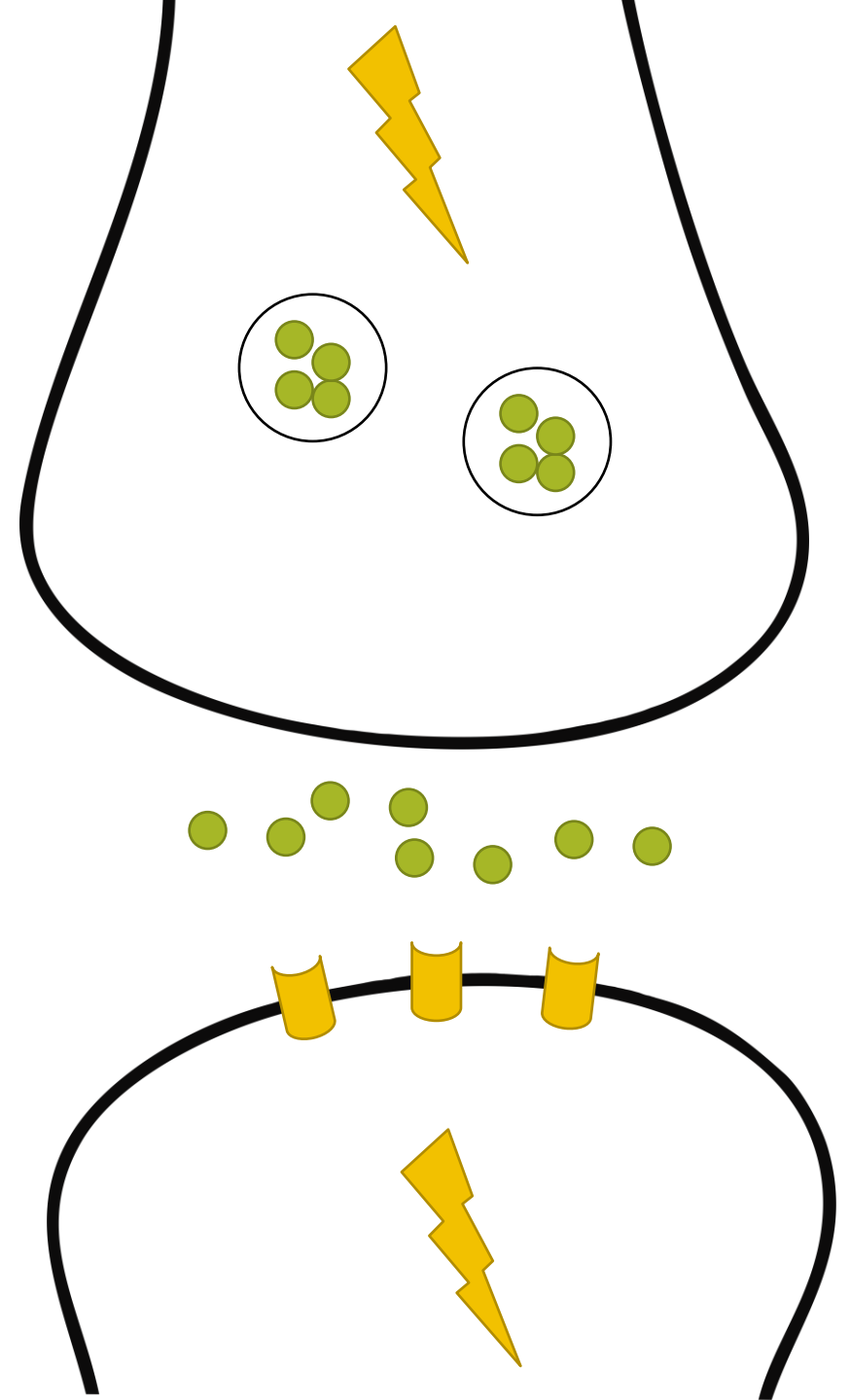




Synapsen



Serotonin ●



Synapsen



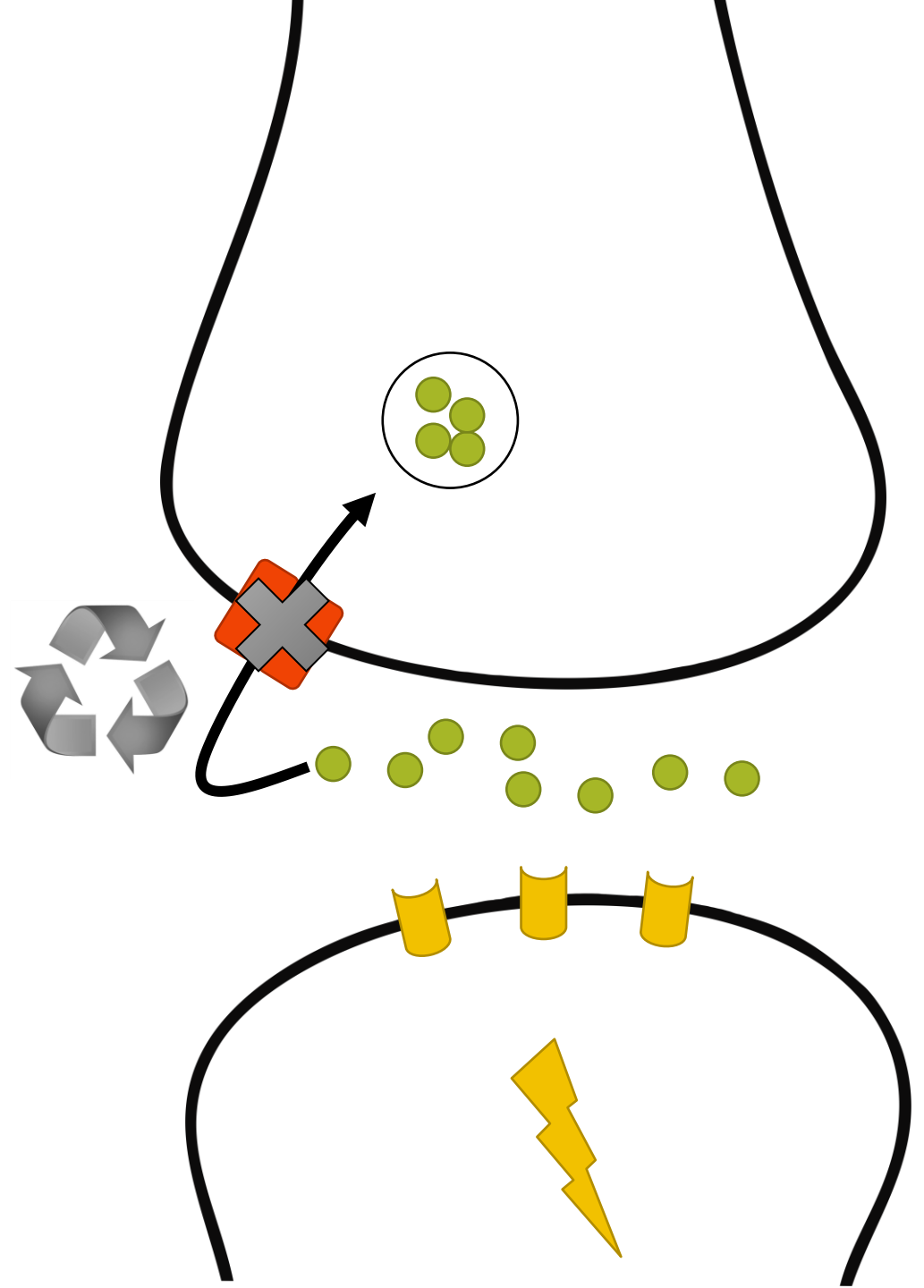
Serotonin ●



Serotonin-
Transporter

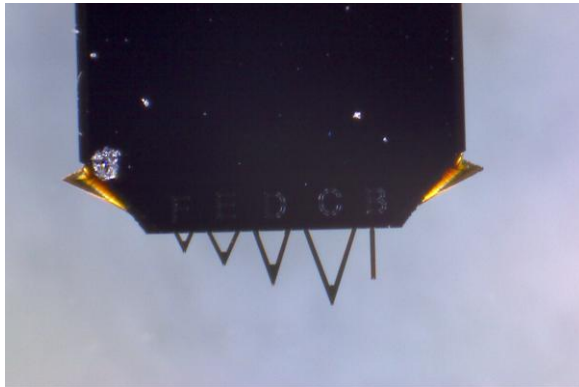
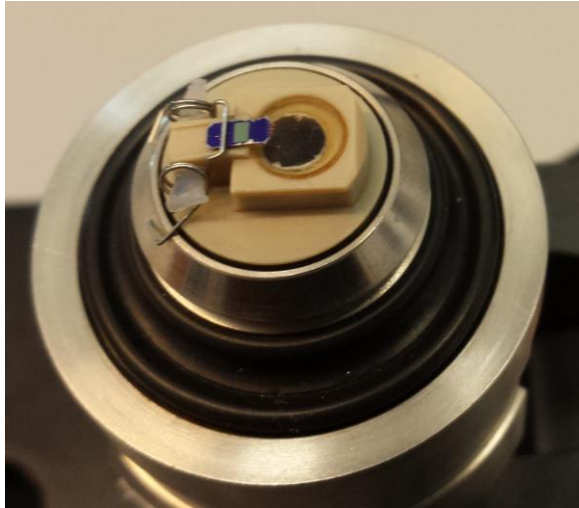
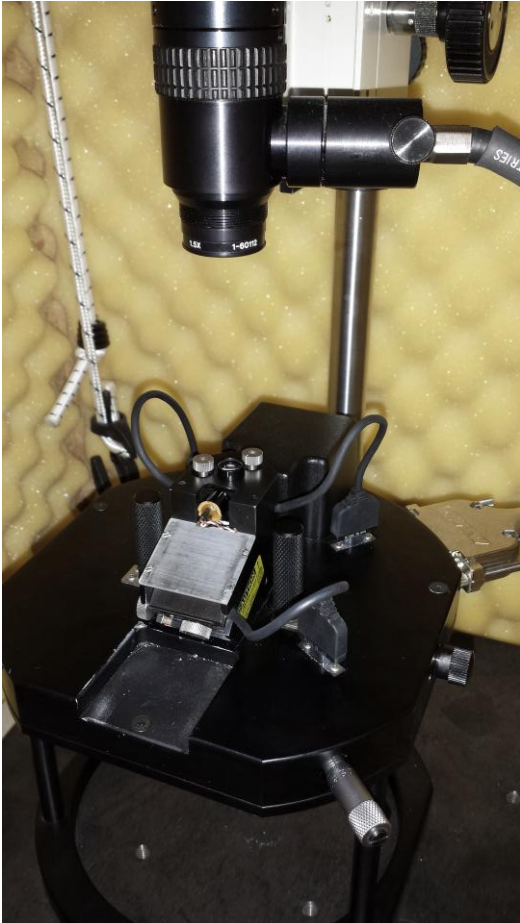


Antidepressiva ✕

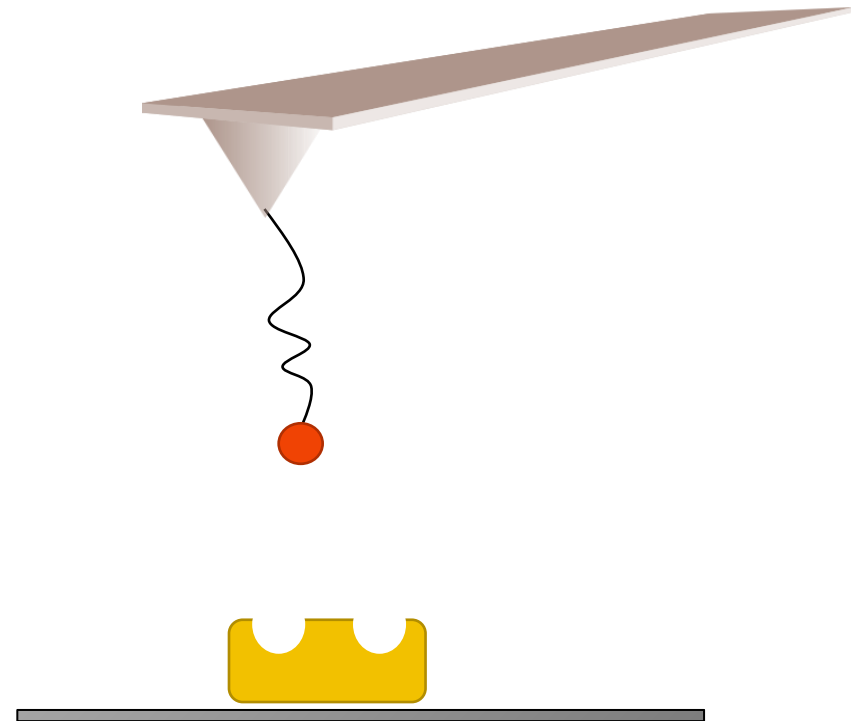




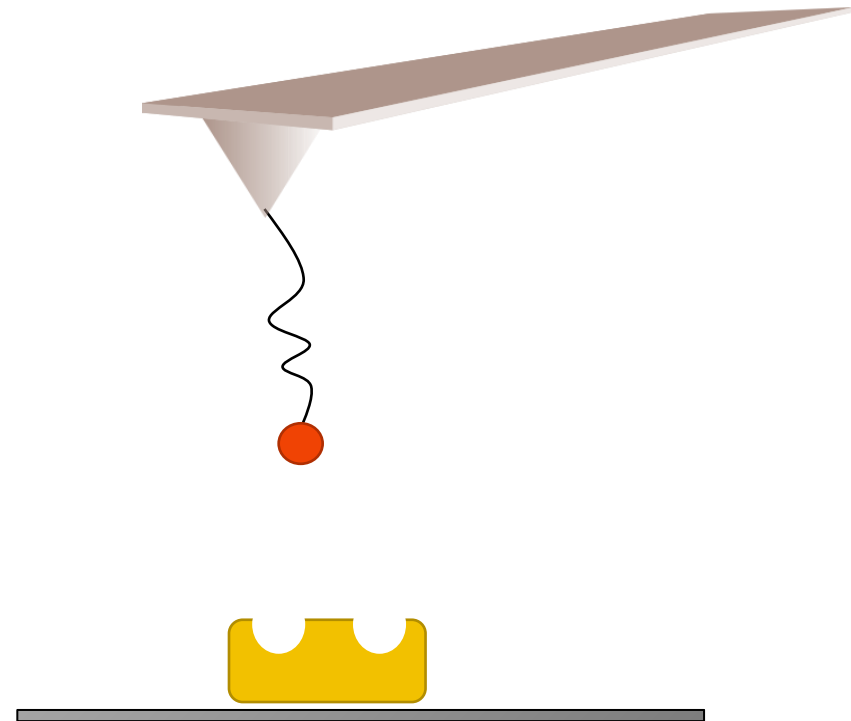
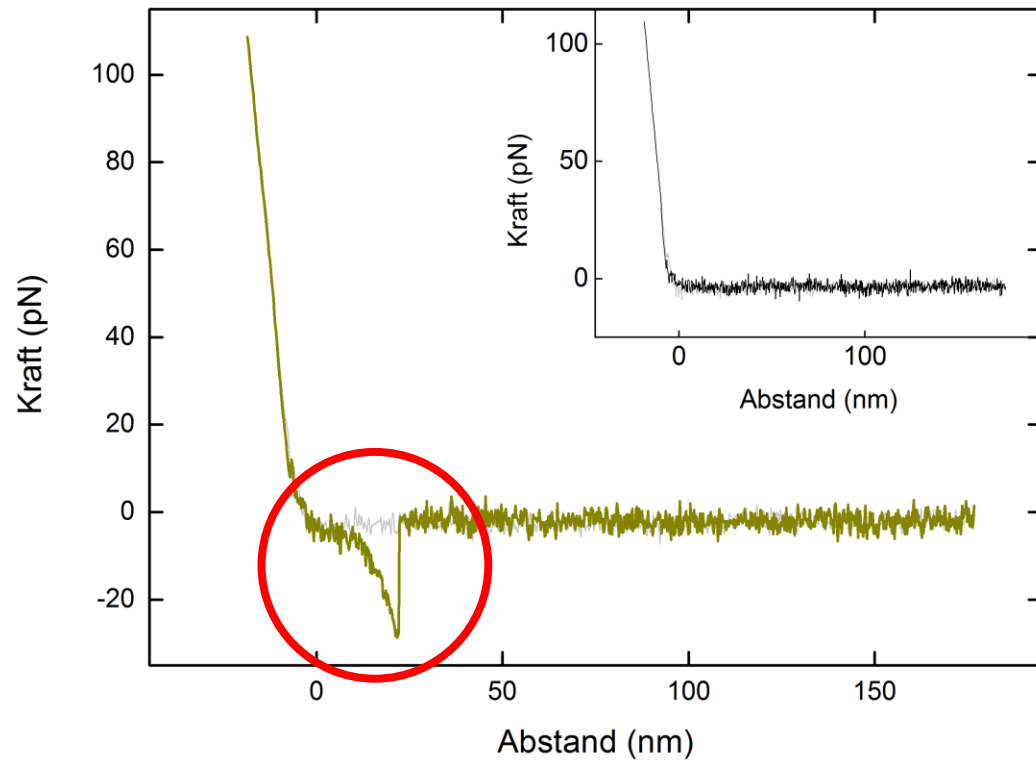
Nano-Angel



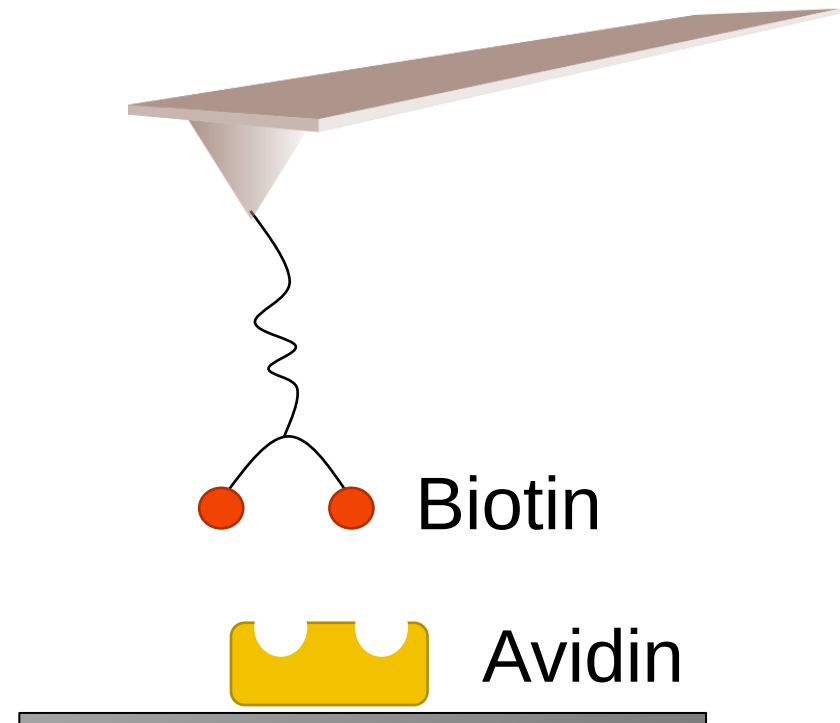
Einzelmolekül-Kraftspektroskopie



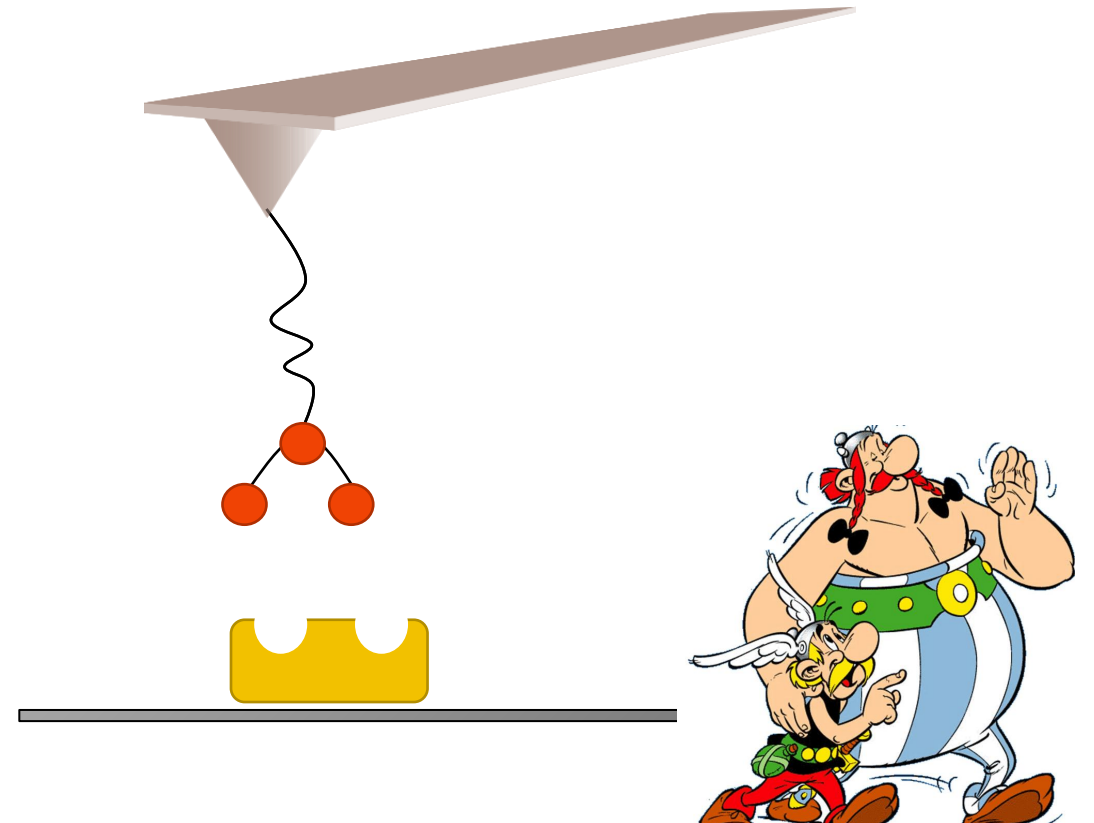
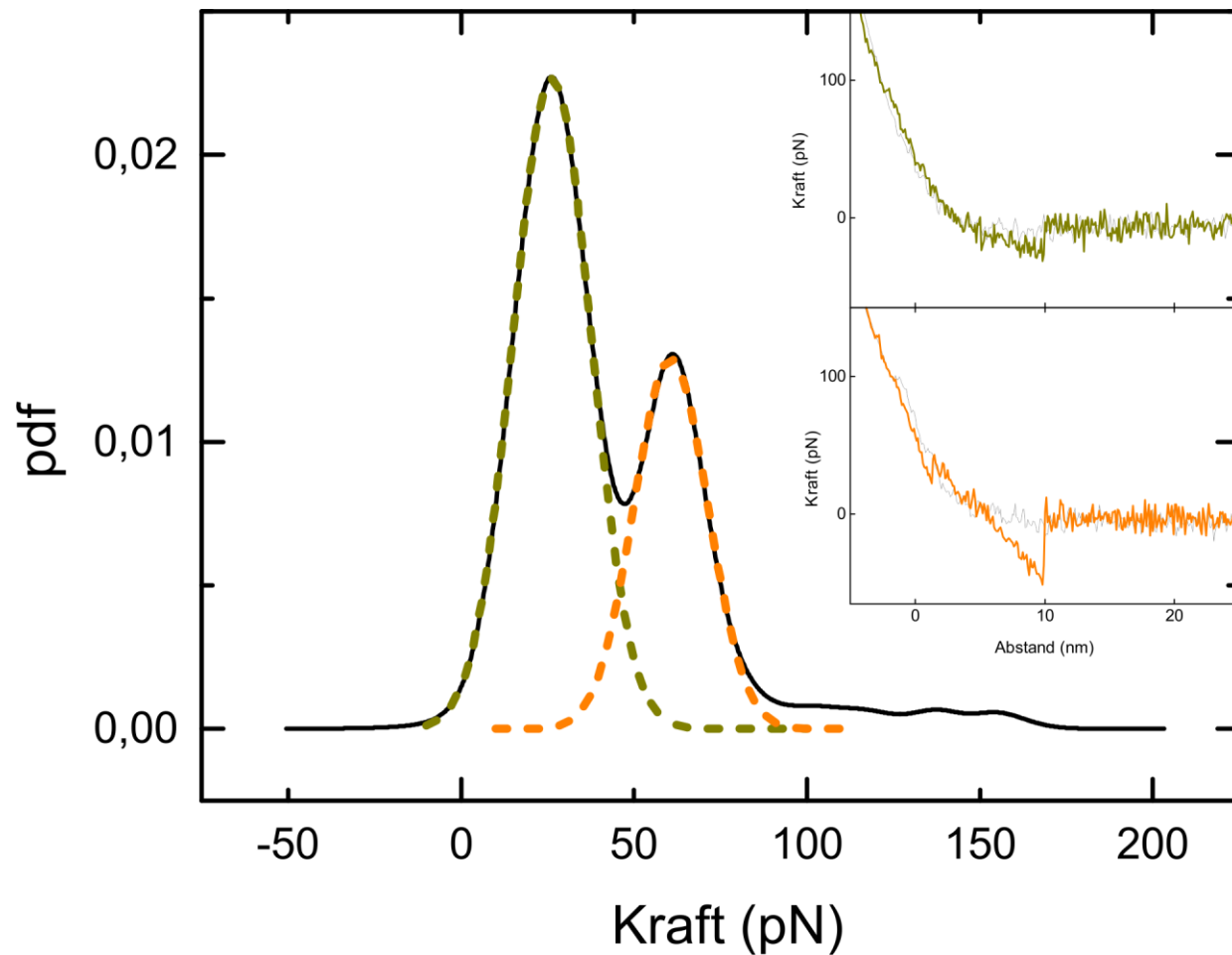
Nano-Angel



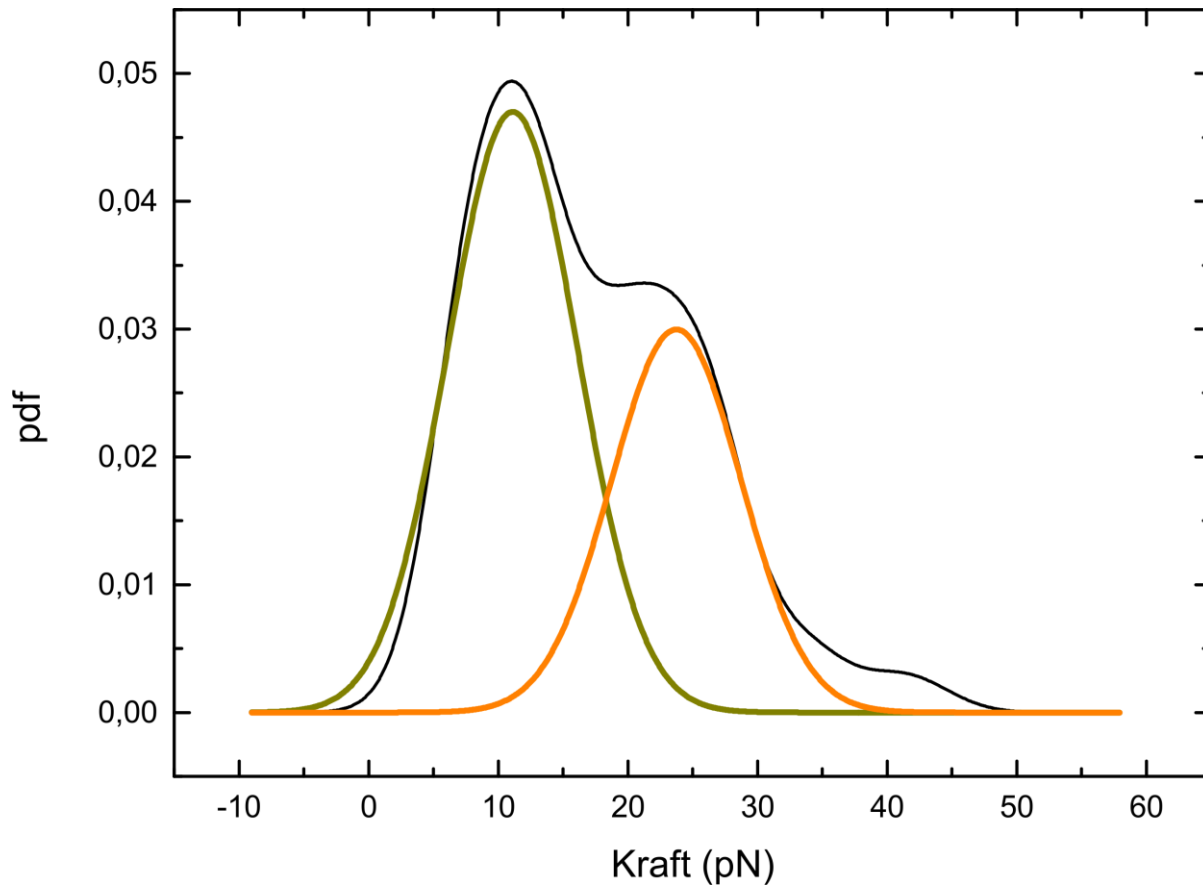
Nano-Angel 2.0



Nano-Angel 2.0



Lebendige Beute



Take home ...



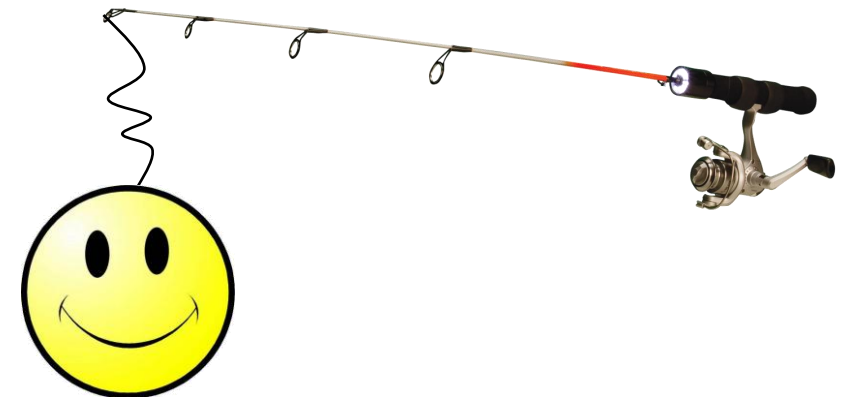
Manche Medikamente wirken wie Socken



Proteine sind gesellige Moleküle



Man kann Glück physikalisch messen



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