

Bad Soden, Germany, 09 December 2010

## Tobias Meckel Awarded Adolf Messer Prize

Dr. Tobias Meckel, a research assistant in the Biology Faculty, received the Adolf Messer Prize, which comes with prize money of 50,000 euros, for his research into processes in living cells. The Adolf Messer Prize is the most valuable scientific prize of the TU Darmstadt and is awarded each year for outstanding achievements in the sectors of natural sciences, engineering sciences, and economic and social sciences and the humanities. Tobias Meckel, a research assistant in the 'Membrane Biophysics' study group in the Biology Faculty at the TU Darmstadt, is receiving the prize for his research programme "Single molecule microscopy for investigating processes with high space and time heterogeneity".

By observing individual proteins in living cells it is possible to record the course of cellular processes with a level of accuracy which also enables the smallest deviations from the normal status to be detected. This results in an understanding of the processes themselves and reveals other possible false regulations which can lead to illnesses.

In the field of single molecule microscopy Tobias Meckel works not only on isolated cells, but also on united cell structures and complete organisms (e.g. zebra fish embryos and plants). Precisely because his research work reveals the smallest changes in cellular processes, it is essential that cells are examined under conditions which occur naturally.

The prize money – which is intended specifically for research projects – will allow Tobias Meckel to take the next important step in which the cells to be examined will not only be cultivated in natural, three-dimensional environments, but the position, concentration and activity of individual proteins – i.e. their dynamics in space and time – will be recorded in all three dimensions.

Adolf Messer founded the Messer company in Höchst am Main in 1898. At that time the company focused on producing acetylene generators. Adolf Messer's interest in acetylene lighting had been aroused by lectures in Darmstadt. As a student he developed safety features for acetylene generators, for which he was granted his first patents in 1902 and 1903. Today the Messer Group is one of the leading industrial gas companies and is active in 30 countries with more than 60 operative companies. Around 5,260 employees will earn an anticipated consolidated turnover of approx. EUR 800 million in 2009.

<https://newsroom.messergroup.com/en/tobias-meckel-awarded-adolf-messer-prize/>

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