**报告题目: Correlating the interaction of colloidal nano- and micorparticles with cells to their physicochemical properties.**

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**报告时间地点: 2015年1月20日(周二)上午9:00微纳院2-103室**

**邀请人: Jesus M de la Fuente, 崔大祥**

报告内容:Colloidal nano- and microparticles are incorporated by cells. Uptake and also toxic effect can be correlated with physicochemical parameters of the particles. Methods and examples will be discussed.

References:

R. Hartmann, M. Weidenbach, M. Neubauer, A. Fery, W. J. Parak, „Stiffness-dependent in vitro uptake and lysosomal acidification of colloidal particles”, *AngewandteChemie*, in press, DOI: 10.1002/anie.201409693.

D. Hühn, K. Kantner, C. Geidel, S. Brandholt, I. De Cock, S. J. Soenen, P. Rivera Gil, J. M. Montenegro Martos, K. Braeckmans, K. Müllen, G. U. Nienhaus, M. Klapper, W. J. Parak, "Polymer-coated nanoparticles interacting with proteins and cells: Focusing on the sign of the net charge", *ACS Nano***7**, 3253–3263 (2013).

M. Nazarenus, Q. Zhang, M. G. Soliman, P. del Pino, B. Pelaz, S. Carregal-Romero, J. Rejman, B. Rothen-Rutishauser, M. J. D. Clift, R. Zellner, G. U. Nienhaus, J. B. Delehanty, I. L. Medintz, W. J. Parak, “Interaction of Colloidal Nanoparticles with Mammalian Cells: What Have We Learned Thus Far?”, *Beilstein Journal of Nanotechnology***5**, 1477–1490 (2014).

W. Kreyling, A. M. Abdelmonem, A. Wenk, D. Jimenez de Aberasturi, A. Zulqurnain, J.-M. Montenegro, S. Hirn, I. Ruiz de Larramendi, T. Rojo, N. Haberl, G. Khadem-Saba, W. J. Parak, "In vivo integrity of colloidal nanoparticles", *Nature Nanotechnology*, in revision.

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1989-1997 General Physics studies at the TechnischeUniversitätMünchen, Germany

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