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## Advances in HPLC purification of peptides – Future benefits of in-house integration

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As peptide-based APIs are getting more complicated the bar is raised constantly in the downstream purification part. The tool-box available for scientists is bursting, new stationary phases are developed in a steady progress, but most unfortunately often there is no time to do a decent screening for choosing the optimal silica based reversed phases stationary phase for high pressure liquid chromatography. Though the importance is high, usually the last, so called polishing step has strong impact on the process economy. The presentation is moving through the important physicochemical parameters of the silica particles and pointing out the role they play in the process. Special attention is paid for the pore and particle size and how they determine the success of the purification. A sadly neglected point, the great importance of the ligand density or bonding density of the reversed phased silica is explained in details. The presentation is focused on large scale/ process scale purification, but the principles just as much apply to analytical HPLC work. Better integration connecting purification jobs from mg scale up to large industrial scale production is easy to achieve if the scientists manning those different stations have common understanding and common knowledge on the science behind the purification jobs.

### Biography

"Imre Sallay was born and raised in Hungary, Budapest. He spent almost four years as researcher/teaching assistant at a local university in the Biochemistry Department. Fate assigned his first task to be HPLC separation of enzyme digested insulin fragments. Moved to Japan with a research scholarship for one-and-a-half years, but got entangled in a PhD course leading to a post-doc binding him irreversibly to the country. The first job at a laboratory supplier company landed him to the chromatography world. For the last 10 years he is travelling around the Globe tirelessly consulting API producer companies with especial attention to insulin manufacturing. He is passionate about the beauty of the science at work in silica based reversed phase chromatography. When not on the road he happily lives in Osaka with his ancient guinea pig."

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