

From the Lab to the Plant. Process Analytics at dsm-firmenich

Dr. Roman Romero

Senior Analytical Scientist, dsm-firmenich Ltd., 1242 Satigny, Switzerland

roman.romero@dsm-firmenich.com

Process Analytical Technology describes an approach to designing, analysing, controlling, and monitoring manufacturing processes through the timely measurement of key process parameters using modern analytical techniques. In research and development, PAT can provide real-time information that is transferable to manufacturing. In manufacturing, it can help prevent at-risk processing while results from a remote laboratory are still pending.

PAT has been used at dsm-firmenich for many years. However, the approach to PAT has not been the same across the two legacy companies. This presentation will highlight these differences and show how we are overcoming them, one probe at a time.



Roman Romero is a Senior Analytical Scientist with over two decades of experience at the interface of analytical chemistry, natural products, food science, and industrial innovation. His work spans academic research, corporate R&D, and laboratory leadership, with expertise in gas and liquid chromatography, spectroscopy, and method validation. He currently leads a research group at dsm-firmenich in Geneva focused on developing analytical solutions for discovery and process chemistry troubleshooting, supporting business needs across the organization, particularly in Perfumery & Beauty.