

EVER FACED SUCH QUESTIONS?

- *How does manufacturing and formulation impact the stability and onset of crystallization of a solid dispersion?*
- *How efficiently does the coating prevent hydration of the tablet core?*
- *How can we detect in microdosage highly-potent formulations minority phases at levels of detection orders of magnitude smaller than lab-XRPD can do?*
- *How to ensure that no interaction between APIs and excipients occurs in fixed dose combination tablets during manufacturing or storage?*

APPLY TO THE ESS CASE STUDIES PROGRAM!

In support of the 2nd annual Spring Pharmaceutical Synchrotron X-ray Powder Diffraction workshop, organized with the Pharmaceutical Powder X-ray Diffraction Symposium (Joint SPS-XRPD-2/PPXRD-16, 9-12 May 2019, Switzerland), **Excelsus Structural Solutions (ESS)** offers **5 companies the opportunity to be selected and obtain complimentary Synchrotron X-ray Powder Diffraction data analysis in the frame of a complimentary case studies program.**

In this context, ESS team is looking for pharmaceutical companies/partners wishing to:

- share no-longer-proprietary drug material for S-XRPD analysis exhibiting specific problems or raising particular questions
- publish together with ESS the outcome of such study on ESS website

In exchange, ESS will

- provide the selected companies with an advanced S-XRPD study of the selected material
- offer the selected companies the opportunity to present together with ESS this result at the upcoming SPS-XRPD-2/PPXRD-16 conference in a dedicated session

HOW TO APPLY?

1. Send a short proposal explaining the case of interest to: sps-xrpd@excels.us
2. After a short exchange with ESS team, send your samples. A non disclosure agreement and a materials transfer agreement can be worked out in parallel.
3. ESS performs the S-XRPD analysis of your samples and discusses the results with you.
4. The data are organized as a case study that you are invited to present during the joint PPXRD/SPS-XRPD-2 or alternatively that ESS can present.

SUGGESTED TOPICS:

- AMORPHOUS SOLID DISPERSIONS/ POORLY SOLUBLE ACTIVES
- INTELLECTUAL PROPERTY ISSUES/ PATENT LITIGATION
- IMPACT OF MANUFACTURING PROCESSES

Feel free to suggest your own area of interest

EXCELSUS STRUCTURAL SOLUTIONS IS LOOKING FOR PHARMACEUTICAL INDUSTRIAL PARTNERS!

About Synchrotron X-Ray Powder Diffraction

Advanced analytical techniques are among the keys to success in drug discovery. To remain competitive, pharmaceutical companies must stay at the forefront of innovation and judiciously apply cutting-edge techniques to boost the efficiency and outcomes of pharmaceutical drug development. In this context, Synchrotron X-Ray Powder Diffraction (S-XRPD) is a very powerful technique to add to the analytical toolbox. Synchrotron-generated X-rays are at least five orders of magnitude more intense than the best laboratory x-ray source, S-XRPD offers improved angular resolution, counting statistics, energy tunability, and fast acquisition time (ms to few minutes). This gives the possibility to reach levels of detection as small as 0.01%, particularly useful for highly potent drugs and microdosage formulations, even when only micrograms of polycrystalline sample are available. Furthermore, radiation damage of organic compounds can be controlled and kinetic studies of structural changes during chemical reactions or under temperature and pressure variations can be performed. S-XRPD has also recently been increasingly used to investigate the properties of amorphous and poorly crystalline materials thanks to the total scattering approach.

About Excelsus Structural Solutions

Excelsus Structural Solutions (ESS) has offered since 2012 easy and affordable access to innovative synchrotron characterization techniques, in particular advanced X-Ray Diffraction, tailored to fit the pharmaceutical industry's needs and deadlines. While guaranteeing flexibility, reproducibility, high-quality and confidentiality of the provided services, ESS team believes that synergy and close collaboration with their industrial customers is key to solving complex issues encountered in pharmaceutical R&D, thereby contributing to accelerate drug development.

