

ADDING VALUE THROUGH SCIENCE

SUCCESSFULLY SELLING SUPER-SCIENCE THE PLACE OF LARGE-SCALE INFRASTRUCTURE IN CONTRACT RESEARCH

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Colloidal Resource founded in 2005 by Karin Bryskhe and Anna Stenstam

- Spin-off from Physical Chemistry, Lund University
- Located in the Chemical Centre, Lund University











Formulation & material science IP owned by the client Fee-for-service 7 people n-house development NMR/MRI IP owned by CRD Venture capital 2 people

CR Competence - Our business



- Formulation and process design
- Advanced analysis and material science
- Product development
- *Trouble shooting and optimization in all phases* including "Scientific Due Diligence", FMEA risk analysis etc.



Adding Value Through Science – In many different fields of business!







"Colloidal Resource has brought great insights and value to real world problems in our product development cycle. They have a great balance of being focused on the end product and also bring best in class scientific thinking and approaches"

Eric S. Johnson, P&G Beauty



HOW DO WE DO THIS?

Clever use of existing facilities – including large-scale infrastructure



Chemical Centre NMR DLS, DWS, 3DDLS, LD GC-MS FTIR, CD XRPD AFM Ellipsometry, QCM Streaming potential

External organisations Analytical labs Engineering groups (Join) Smart companies (MV) University hospitals Institutes Large-scale infrastructure Microtomography SAXS, WAXS Diffraction EXAFS Crystallography Surface diffraction IR

. . .

We identify the actual problem – *then* we identify the tools required to solve it

- Large-scale facilities are tools among others (albeit bigger and fancier...)
- We use large-scale infrastructure
 - When we can (accessibility)
 - When it adds value (cost vs benefit)
 - When we know what to use it for (2-way knowledge transfer)

Solutions looking for problems? We have all the problems you need!



Specific examples

- EXAFS on metal-containing polymer matrices
- SAXS (combined with NMR) on gel networks
- IR microscopy
- Surface diffraction on modified metal surfaces
- Tomography

The Large Cosmetics Company



- Working for a better hair day through:
 - Understanding
 - Optimizing
- NMR diffusion



- Electron microscopy
- SAXS @ MAX

Pharma

Form selection	Formulation design	API processing	Analytical methods	Process design
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Pharma



What is the impact of water, in processing and during storage? Can we understand the interaction between water and pharmaceutical materials?

Finding the critical point in moisture sensitive materials



Finding the critical point in moisture sensitive materials



Where is the water, how much is it, and how does it behave (composition, structure and dynamics)???



Bridging the gap

: Our customers have needs – not necessarily the right approach

The apparent need is not always the actual need.

: Our customers want solutions – not data. Data are nothing – applicability is everything.

