

## OptiCryst consortium partners:



Aston University, UK  
**Dr. Roslyn Bill** - Coordinator



Imperial College London, UK  
**Prof. Dr. Naomi Chayen** - Scientific Director



Douglas Instruments Ltd, UK  
**Patrick Shaw Stewart**



Key Drug Prototyping BV, NL  
**Flip Hoedemaeker**



Molecular Dimensions Ltd, UK  
**Tony Savill**



Triana Science & Technology, ES  
**Dr. Lea Vaiana**



University of Lübeck, DE  
**Prof. Dr. Rolf Hilgenfeld**



Farfield Scientific Ltd, UK  
**Dr. Marcus Swann**



Consejo Superior de Investigaciones Científicas, ES  
**Prof. Dr. Juan Ma Garcia Ruiz**



PLS-Design GmbH, DE  
**Prof. Dr. Christian Betzel**  
Commercialisation Director



Gothia Yeast Solutions AB, SE  
**Per Edlund**

## How to contact us:

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EC 6th Framework Programme – Thematic priority 1.

Life Sciences, Genomics and Biotechnology for Health.

Multidisciplinary functional genomics approaches to basic biological processes.

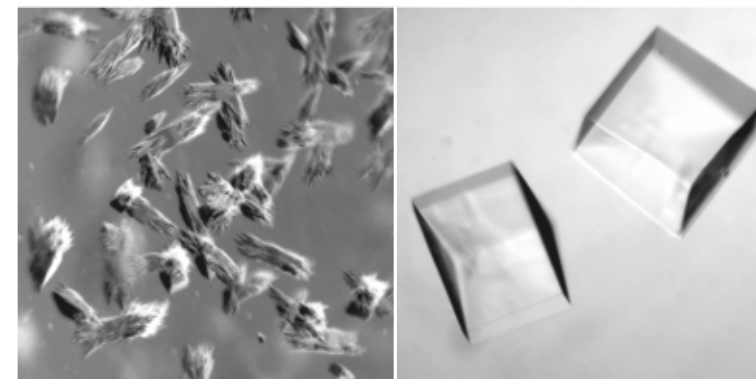
STREP – Specific Targeted Project dedicated to SMEs  
Contract no.: LSHG-CT-2006-037793  
EC contribution: 2.268.531,00€  
Project duration: 36 months  
Start: Dec 01, 2006  
7 small-to-medium enterprises & 4 academic institutions.



# OptiCryst

Optimisation of Protein Crystallisation  
for European Structural Genomics

[www.opticryst.org](http://www.opticryst.org)



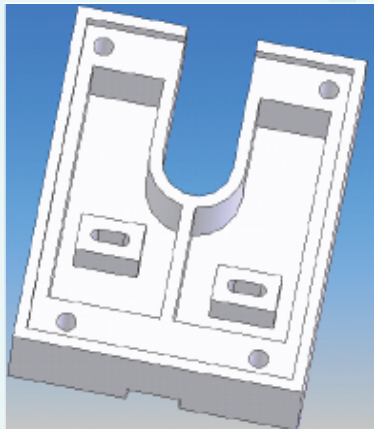
## Aims and Objectives:

OptiCryst is designed to establish a new state-of-the art in protein crystallisation.

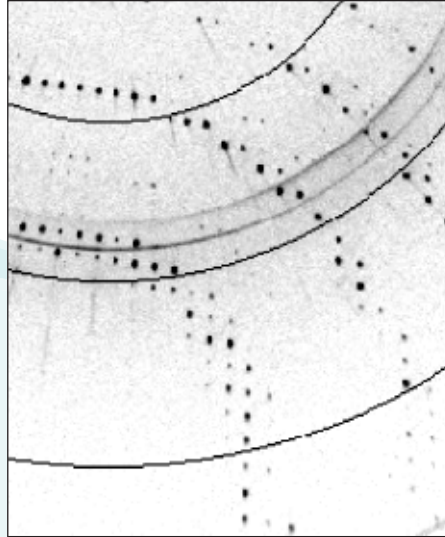
The objective of OptiCryst's research platform is the development, implementation and exploitation of new technologies to overcome the bottleneck of protein crystal optimisation.

OptiCryst has two key goals-

- To develop and commercialise new methods and equipment to obtain high-quality crystals of proteins difficult to crystallise,
- To develop a platform for supporting the Structural Genomics initiatives in Europe struggling to deliver the number of structures that was hoped for.



**Chip for characterising crystallisation space**

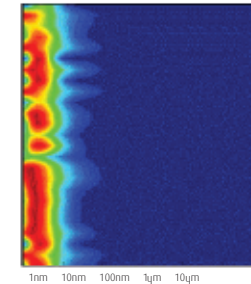


This will be achieved by integrating complementary techniques in a concerted effort by seven SMEs and four academic groups. The OptiCryst consortium will develop research outputs aimed at crystallising proteins of high therapeutic value, with the goal of using this information for novel drug development.

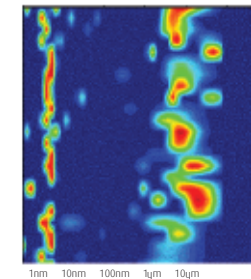
Our consortium will give Europe a leading role in an area crucial to improving human health and the economy.

## The techniques involved:

- New nucleants and control of nucleation
- crystallisation kinetics
- In-situ dynamic light-scattering (DLS) and UV detection
- crystallisation in gels
- Counter-diffusion
- Micro-fluidics
- Dual-polarisation interferometry
- crystallisation robotics
- Imaging and archiving



**A:** DLS profile at mixing of protein and crystallising agents



**B:** DLS profile when nucleation occurs several hours later