

## prediCt

**Title** Mathematical modelling of TKI effects and immune response to predict patient-specific treatment dynamics in CML

**Coordinator** Ingo Roeder ( TU Dresden, Germany).



### Project partners



Ingo Roeder (Technische Universität Dresden and National Center for Tumor Diseases (NCT) - Partner site Dresden, DE)



Andreas Hochhaus (University Clinics Jena, Jena, DE)



Henrik Hjorth-Hansen (Norwegian University of Science and Technology, Trondheim, NO)



Francois-Xavier Mahon (CRLCC Institut Bergonié and Laboratoire Oncogénèse Mammaire et Leucémique INSERM U1218 ACTION and University of Bordeaux, Cedex, FR)



Satu Mustjoki (University of Helsinki and Helsinki University Central Hospital and Finnish Cancer Institute, Helsinki, FI)



Andreas Burchert (University Clinic Giessen and Marburg, DE)

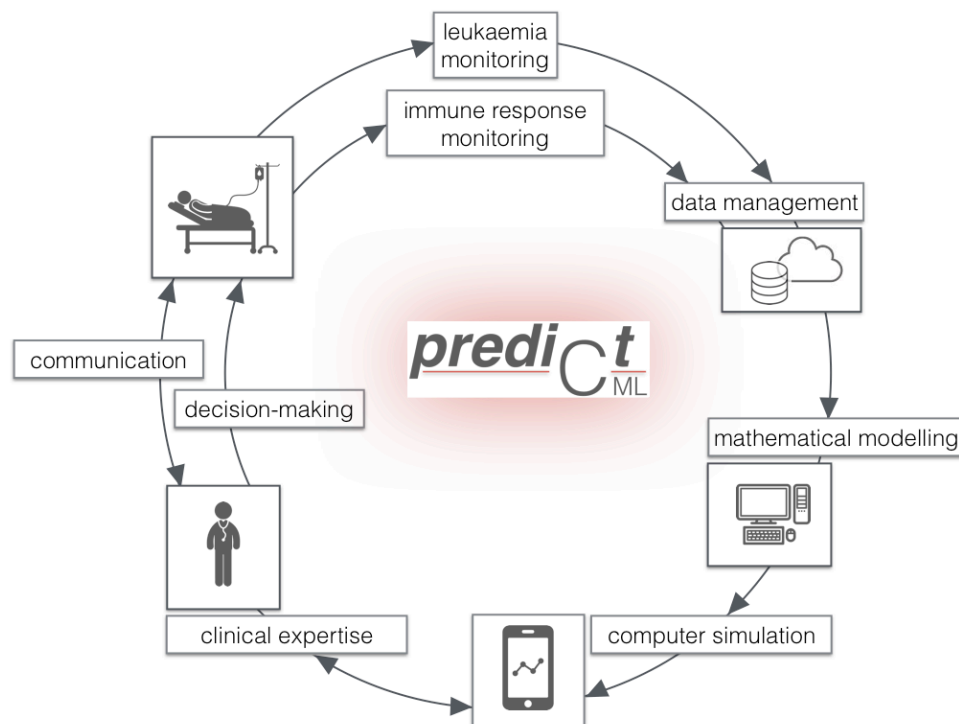


Francois Guilhot-Gaudeffroy (Inserm Clinical Investigation Centre 1402, Poitiers, FR)

Start date July 1<sup>st</sup>, 2018  
End date June 30<sup>th</sup>, 2021  
Funding requested 1.201.000 €  
Duration 3 years

### Abstract

Chronic myeloid leukaemia (CML) is a malignant disease of the hematopoietic system for which tyrosine kinase inhibitors (TKI) are available as an efficient, targeted therapy. However, while TKI treatment allows to control the disease, it is still unclear whether a definite cure can be achieved and to which extent immunological factors influence the success of treatment cessation. Based on several high quality data sets from different clinical studies, we will develop mathematical models that consider both leukemic stem cell dynamics and immunological effects. Integrating these models in a particular software environment along with available clinical data will support the major aim of our project, i.e. support clinical decision-making with respect to relapse risk assessment and TKI cession planning at the level of individual patients.



Email [ingo.roeder@tu-dresden.de](mailto:ingo.roeder@tu-dresden.de)

---