



## Welcome

*We are at the forefront of a new era, where data science and artificial intelligence are paving the way towards precision medicine. The use of real-world-data combined with machine learning allows for the discovery of different patterns of disease progression and drug response. Early identification of these patterns in patients, will lead to more optimal diagnosis and treatment strategy, adapted to the patient's needs and aiming at maximization of survival rates.*

***"ATHENA represents a unique proof-of-concept for federated real world data management in precision medicine"***



Bart Vannieuwenhuysse  
ATHENA project lead  
Senior Director Health Information Sciences at Janssen

[READ MORE](#)





## About ATHENA

**Project ATHENA ('Augmenting Therapeutic Effectiveness through Novel Analytics') is setting the scene for the future of precision medicine.**

ATHENA is a collaborative network which brings together a unique, multidisciplinary and complementary partnership of academia, hospitals and industry who explore and use the concept of machine learning for the realization of predictive analytics in oncology. By creating a **federated and standardized analytics platform**, it will be possible to combine different data types in one predictive model. It will allow access for partner hospitals and industries to discover different patterns of disease progression and drug response, while fully preserving the privacy of patients.

The consortium is proud to have received funding from VLAIO (Flanders Innovation & Entrepreneurship), as one of the four supported projects in the ICON call on personalized medicine (ref. HBC.2019.2528). ICON (Interdisciplinary Cooperative Research) is a formula for demand-driven, cooperative research, such as presented in project ATHENA.

We hope this newsletter will provide you with valuable project information and progress updates.

**FLANDERS**  
INNOVATION &  
ENTREPRENEURSHIP

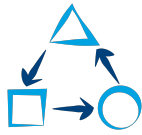


**Flanders**  
State of the Art

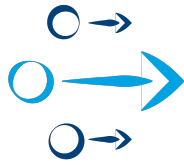
## Why do you need ATHENA?

### Data-driven disease insights

Data-driven precision medicine will be accelerated through data (records, images, omics) mobilisation, to generate new disease insights that will support care,



improve survival and inform research. Multiple myeloma and bladder cancer may serve as a template for other cancer types.



## Streamlined decision-making

The goal of personalised medicine is to streamline clinical decision making by distinguishing in advance those patients most likely to benefit from a given treatment from those who will incur cost without gaining sufficient benefit (responder or non-responder).



## Better treatment options, delivered to patients faster

Better treatment of patients through advanced diagnostics and personalized medicine will ultimately lead to benefits for all involved: first of all, for the patients but also for care providers and the biomedical industry and this at all levels: clinical, operational, and financial.

[READ MORE](#)

## Insights from ATHENA partners

### PERSONALIZED MEDICINE

When diagnosis, care and therapy are all optimized for the particular situation of a patient, one can use the term personalized medicine. The opposite is true when a generalized care procedure is used for all patients, regardless of their characteristics.

*"The success of a therapy does not only depend on the treatment itself, but also on the patient. Some people don't respond well to certain medication. ATHENA will help us to discover which patients are most likely to benefit from certain treatments."*



**Prof. Dr. Frank Van der Aa**

*ATHENA WP lead*

*Head of Urology at UZ Leuven / KU Leuven*

## DATA SCIENCE

Data science is an interdisciplinary field that aims to integrate, process and analyze large amounts of data in order to uncover patterns and create insights.

*"Data science is becoming an essential part of research. We are generating data at an unforeseen rate. Applying the necessary tools and know-how, these data can be used to create novel insights into diseases, as we will do with ATHENA."*



**Bart Vannieuwenhuyse**

*ATHENA project lead*

*Senior Director Health Information Sciences at Janssen*

## FEDERATED NETWORK

A network is called federated when different partners in the interconnected ecosystem agree upon a uniform strategy, in this context, for use, processing and analysis of data.

*"The specific advantage of ATHENA being a federated network is that it allows the combined use of data while preserving data privacy and security."*



**Michel Van Speybroeck**

*ATHENA partner*

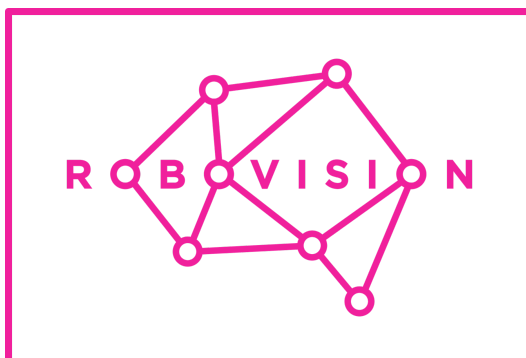
*Director Data Sciences at Janssen*





## Meet the consortium

ATHENA brings together a unique, multidisciplinary, and complementary partnership of care providers, experts in IT architecture, data science, genomics, medical affairs, etc. Only by combining the expertise and exploring the gaps in knowledge in ATHENA, can a novel federated privacy preserving platform be created for oncology research.





UNIVERSITEIT  
GENT



illumina®



---

Where are we now?

## Scientific

Key research questions finalized

Protocol development and approval ongoing



## Data

Data catalogue finalized

Data harmonization ongoing (EHR/genomics/imaging)



## Tech

Technical implementation finished

Ready for testing!



## ATHENA is out there!



**ATHENA project presented  
@ international MIE conference**

May 27-30, Nice, France

Tine Lewi (project co-lead, Janssen) and



**Knowledge for Growth features  
ATHENA!**

May 18, Gent, Belgium

Bart Vannieuwenhuysse (project co-lead,

Martijn Oldenhof (PhD researcher, KU Leuven) represent the ATHENA consortium at the 2022 edition of MIE on *Challenges of Trustable AI and Added-Value on Health*.



### **ATHENA @ EmP Engineer meets Physician**

May 31-June 1, Roeselare, Belgium

Tine Lewi (project co-lead, Janssen) joins the 1st RADar Conference to talk about ATHENA and data-driven healthcare. Together with Valerie Vandeweerd, MD (Janssen), she represents the ATHENA team at the EmP conference.

Janssen) and Ingrid Maes (WP lead, Inovigate) talk about the relevance of real world data and privacy preservation in precision medicine.



### **ATHENA partner imec presents @ Future Summits 2022**

May 17-18, Antwerp, Belgium

Roel Wuyts (WP lead, imec) shows how imec collaborates in tackling key challenges like making data available securely, developing AI that respects the privacy of data, or designing sustainable and scalable systems.

## **Interesting for ATHENA followers**

### **Coming up**

#### **COPA2022 Symposium**

August 24-26, 2022

Brighton, UK

--- Conformational and probabilistic predictions

#### **IHUK2022 Forum**

September 7-8, 2022

London, UK

--- Series of events on intelligent health

#### **ESMO2022 Congress**

September 9-13, 2022

Paris, France

--- Clinical oncology

### **Abstract deadlines approaching**

### MAP2022 Congress

October 14-16, 2022

Amsterdam, The Netherlands

--- Molecular precision oncology

**ABSTRACT deadline: July 26, 2022**

### BLADDR2022 Congress

October 20-21, 2022

Athens, Greece

--- Bladder cancer

**ABSTRACT deadline: August 21, 2022**

### EMUC2022 Congress

November 10-12, 2022

Budapest, Hungary

--- Clinical urology

**ABSTRACT deadline: August 1, 2022**



Contact:

[info@athenafederation.org](mailto:info@athenafederation.org)

[portal.athenafederation.org](http://portal.athenafederation.org)

*The consortium has received funding from VLAIO (Flanders Innovation & Entrepreneurship) in 2019, as one of the four supported projects in the ICON call on personalized medicine (ref. HBC.2019.2528). ICON (Interdisciplinary Cooperative Research) is a formula for demand-driven, cooperative research, such as presented in project ATHENA.*

FLANDERS  
INNOVATION &  
ENTREPRENEURSHIP



Flanders  
State of the Art

#### DISCLAIMER:

*"The views and opinions expressed in this publication are those of the respective authors only. The ATHENA Consortium is not responsible for any use that may be made of the information this publication contains."*

Any suggestions for the next bulletin? Contact [info@athenafederation.org](mailto:info@athenafederation.org)

You are not interested in receiving the three-monthly bulletin for ATHENA anymore?

Make sure you are staying on top of recent developments.

[Update your preferences](#)

[Unsubscribe from this list](#)