

# The ICTBioMed NCIP Hub: Cancer Research in a Science Gateway on World-Wide Scale

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19 June 2017



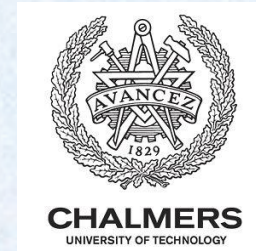
Open Health System  
Laboratory, USA



Centre for Development  
of Advanced Computing,  
India



University of Notre  
Dame, USA



Chalmers University of  
Technology, Sweden



Internet2, USA

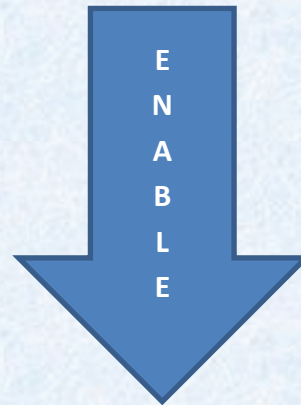


Poznań Supercomputing  
and Networking Center,  
Poland

## In collaboration with:

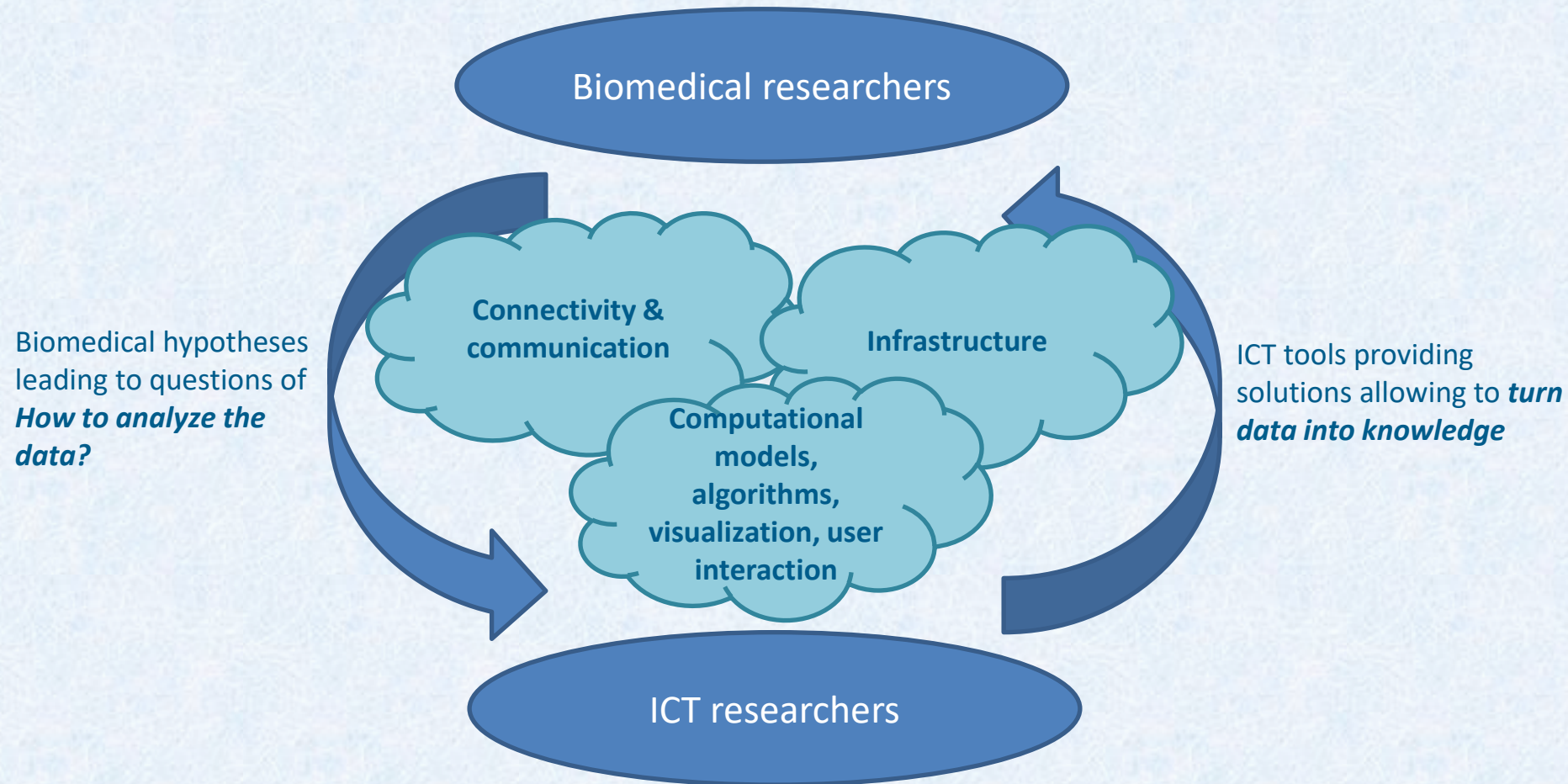
- Arizona State University's Computational Sciences and Complex Adaptive Systems Initiative
- Duke Comprehensive Cancer Center
- Tata Memorial Center in India

Provide an open cloud infrastructure connecting high performance computing hardware, software and data science expertise with a global footprint for biomedical research

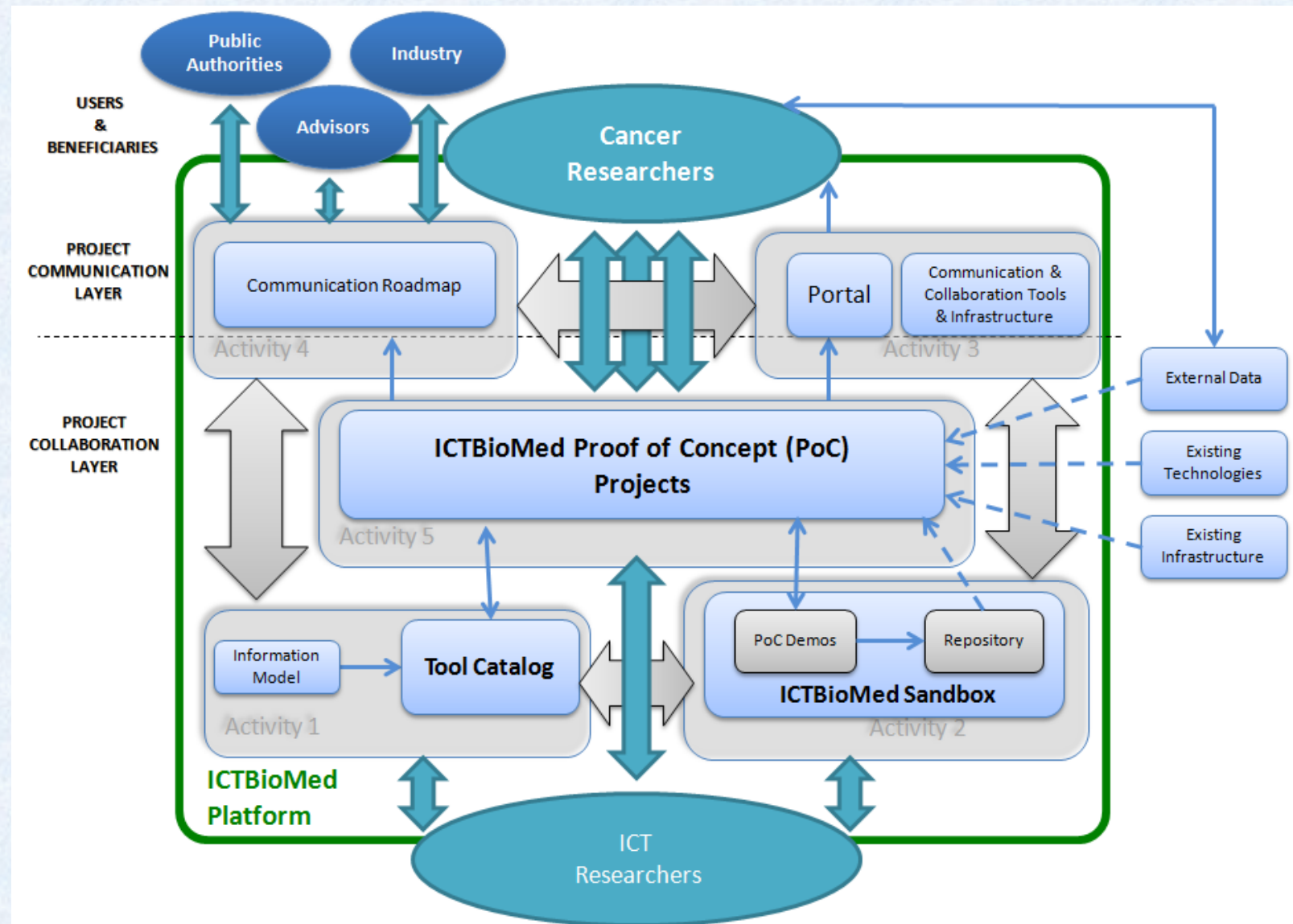


**BD2K**

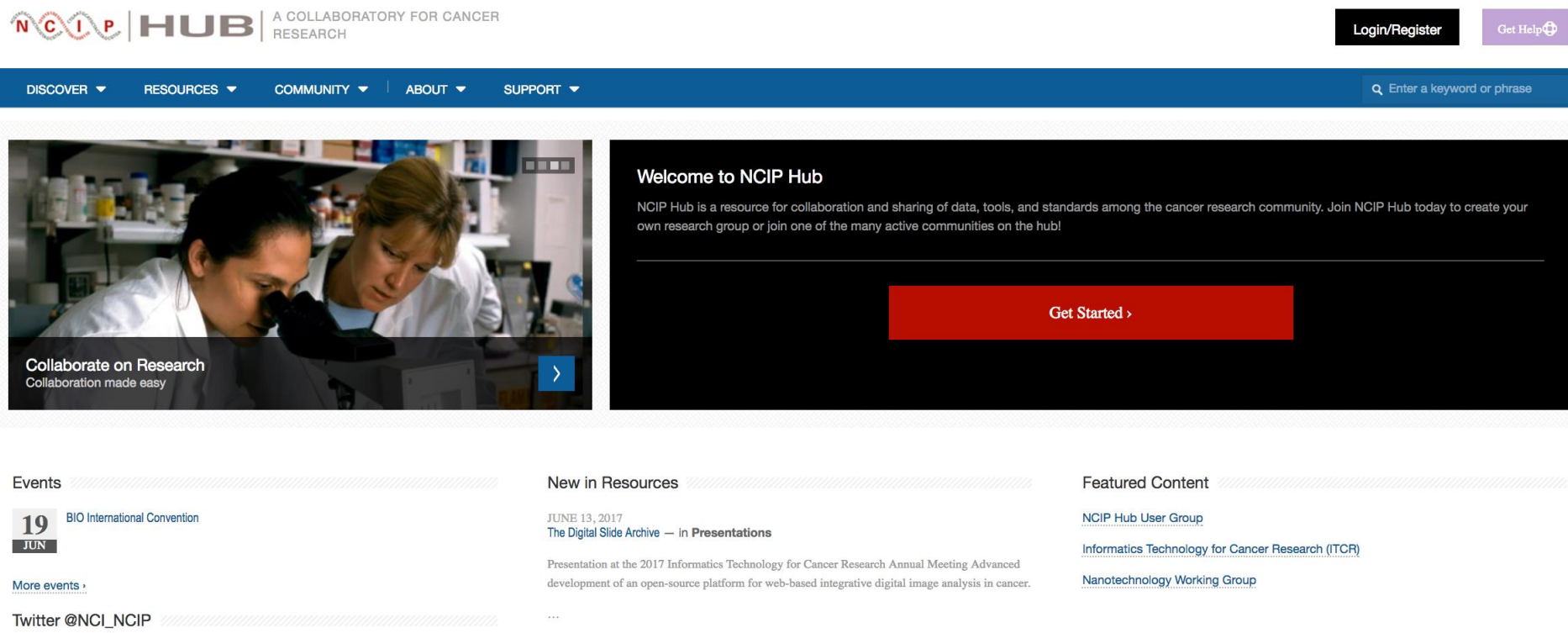
*Big Data to Knowledge*







- National Cancer Informatics Program (NCIP)
- Collaboratory for cancer research
- Based on HUBzero
- Funded resources



The screenshot displays the NCIP Hub website. At the top, the logo features 'NCIP' in a stylized font with red and blue dots, followed by 'HUB' in large bold letters and 'A COLLABORATORY FOR CANCER RESEARCH' in smaller text. Navigation links include DISCOVER, RESOURCES, COMMUNITY, ABOUT, and SUPPORT. A search bar is located on the right. Below the navigation bar, a large banner area contains a video thumbnail on the left showing two researchers in a lab, with the text 'Collaborate on Research' and 'Collaboration made easy'. To the right of the video is a 'Welcome to NCIP Hub' section with a description of the hub's purpose and a prominent red 'Get Started' button. Below the banner, the page is organized into three columns: 'Events' featuring the '19 JUN BIO International Convention', 'New in Resources' featuring 'JUNE 13, 2017 The Digital Slide Archive' and a presentation description, and 'Featured Content' listing 'NCIP Hub User Group', 'Informatics Technology for Cancer Research (ITCR)', and 'Nanotechnology Working Group'. A Twitter link '@NCI\_NCIP' is at the bottom left.

**NCIP HUB** | A COLLABORATORY FOR CANCER RESEARCH

DISCOVER ▾ RESOURCES ▾ COMMUNITY ▾ ABOUT ▾ SUPPORT ▾

Q Enter a keyword or phrase

**Welcome to NCIP Hub**

NCIP Hub is a resource for collaboration and sharing of data, tools, and standards among the cancer research community. Join NCIP Hub today to create your own research group or join one of the many active communities on the hub!

**Get Started >**

**Collaborate on Research**  
Collaboration made easy

**Events**

**19 JUN** BIO International Convention

[More events >](#)

Twitter @NCI\_NCIP

**New in Resources**

JUNE 13, 2017  
The Digital Slide Archive — in **Presentations**

Presentation at the 2017 Informatics Technology for Cancer Research Annual Meeting Advanced development of an open-source platform for web-based integrative digital image analysis in cancer.

**Featured Content**

[NCIP Hub User Group](#)

[Informatics Technology for Cancer Research \(ITCR\)](#)

[Nanotechnology Working Group](#)

DISCOVER ▾

RESOURCES ▾

COMMUNITY ▾

ABOUT ▾

SUPPORT ▾

🔍 Enter a keyword or phrase

Home / Members / Sandra Gesing

## Sandra Gesing ▸ Dashboard

+ Add Modules

### Dashboard Introduction

Welcome to your customizable dashboard page!

To get started, click the "Personalize" button towards the top of this page. You will then be presented with a list of modules you may add to your page. You may also, at that time, remove any unwanted modules or rearrange the current modules by drag-and-drop!

### My Groups

Recent

All

 [International Consortium for Technology in Biomedicine \(ICTBioMed\)](#)

approved

 [NCIP Hub User Group](#)

approved

+ New Group

### Quick Links

[NCIP Hub Newsletter](#)


[NCIP Hub User Group](#)

[Informatics Technology for Cancer Research \(ITCR\)](#)

### Resources


• [Simulation Tools](#)

### My Projects

 All Projects

+ New Project

### My Tickets

 All My Tickets


+ New Ticket

### Dashboard

 Profile

 Account


 Blog

 Collections 1

 Contributions

 Groups 2

 Messages 1

 Projects



A COLLABORATORY FOR CANCER  
RESEARCH



Get Help

DISCOVER ▾ | RESOURCES ▾ | COMMUNITY ▾ | ABOUT ▾ | SUPPORT ▾ |

Enter a keyword or phrase

Home / Groups / International Consortium for Technology in Biomedicine (ICTBioMed)



Group Member ▾

Overview

Collaborating  
Institutions

Vision and Objective

Members 24

Wiki 3

Resources

Forum

Blog

Wish List

## International Consortium for Technology in Biomedicine (ICTBioMed)

► Overview

► Big data ► Cancer Informatics ► NGS ► Radiation sensitizers ► science gateways

### ABOUT THE GROUP



The consortium is built on a foundation of domain knowledge, network and computing resources. All collaborating institutions aim to contribute to the development of new tools that address current challenges in biomedical research.

ICTBioMed supports exploration of ideas and knowledge sharing across the consortium partners and throughout the wider biomedical-informatics and cancer-research community.


Main focus areas of the consortium are Knowledge Integration and Semantic Web, Complex (multidimensional) Big Data Analytics and Visualization, Next Generation Sequencing and Analytics.






## Resources: Tools

 Start a new Tool

Type:  

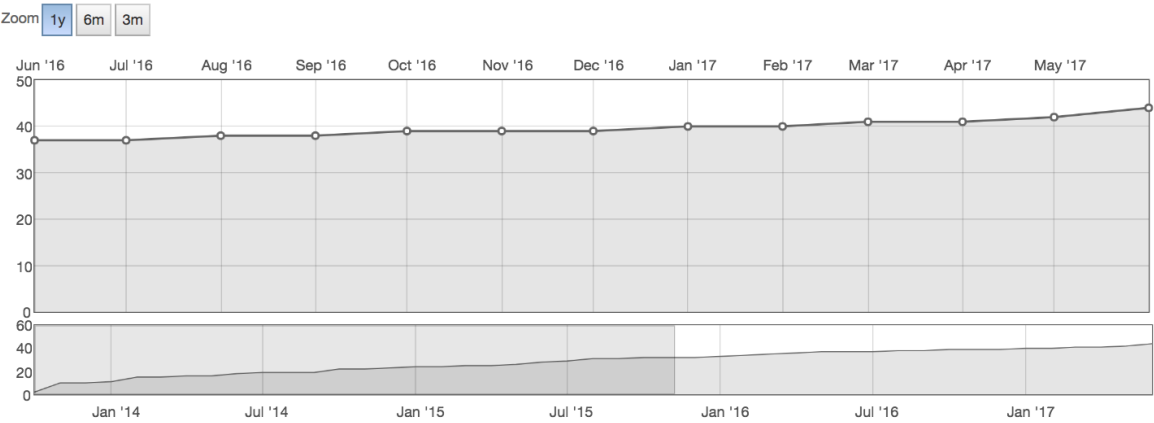
Tag	Resources <input type="text" value="Sort by Title"/> 	Info
[ All ]	dce1	Select a resource to see details.
diffusion (1)	Diffusion Comparator	
	mitoticapp	
	Rstudio IDE for R	
	Workspace	

CitationsAboutQuestionsReviewsUsageVersionsWishlistSupporting Docs

MonthlyYearlyCumulative

Simulation Users

44  
In 31 May 2017



Users By Organization Type

Type	Users
Unknown	23 (63.89)
Government Agency	7 (19.44)
University / College Faculty	3 (8.33)
Other	1 (2.78)
University / College Staff	1 (2.78)
University / College Undergraduate	1 (2.78)

Users by Country of Residence

Country	Users
Unknown	44 (100%)

0 changes (view history)

Watch resource

When watching a resource, you will be notified of changes made. You may stop watching at any time.

## Challenges

- Workflows and data integration
- Attracting users

## Next Steps

- Extension of HUBzero with Docker
- Use cases prepared by the community integrated with Docker
- Additional tools
- Pre-configured workflows

# Thanks!



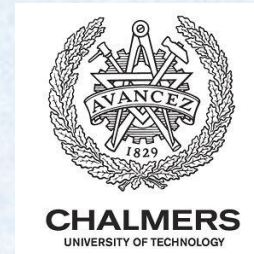
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Dame, USA



Chalmers University of  
Technology, Sweden



Internet2, USA



Poznań Supercomputing  
and Networking Center,  
Poland

sandra.gesing@nd.edu  
<https://ictbiomed.net>