ONCONET-SUDOE
Workshop on Innovative IT for healthcare

"The patient journey: Information Technologies focused on the cancer patient"

3-4 April 2019
CNIO Auditorium. C/ Melchor Fernández Almagro 3, Madrid, Spain

Summary: *IT for healthcare - Information technologies across the cancer patient journey.*

The cancer care continuum defines the evolution of cancer patients, describing the different stages from cancer prevention, early detection, diagnosis, treatment, monitoring, and palliative care. It is a useful framework to identify progress and priorities, where we can detect and define objectives, achievements, risks and gaps. In this context, Information Technologies (IT) for healthcare has the potential to improve cancer management and care. The aim of this workshop is to analyze the impact of IT in the cancer care continuum as well as to discuss the present challenges and achievements in the different stages of the patient journey.

Potential Topics:

- Technical standards for information regarding cancer care throughout the disease course.
- Ensuring patient confidentiality and privacy.
- Patient virtual communities and social media: value in connecting with each other and in mining the online environment for information to help them cope with their disease.
- *In silico* drug prescription and clinical trials design.
- Analyzing potential side effects of cancer therapies.
- Improving continuity of care across disease stages.
- Electronic Health Records (EHRs).
- Development of new programmes for digital training of clinical and medical staff.
- Challenges: data interoperability, systems interoperability, usability, adaptation to physicians' workflows.
- Overcoming resistance to digital change in patients and clinical personnel.
- Financial incentives for digital transformation.
- Transversal topics: Ethics, GDPR, Patient rights, Access to sensitive clinico-genomics data.

Target Audience: Researchers (cancer researchers, informatics researchers, health services researchers), physicians (oncology, internal medicine), healthcare professionals (nurses, laboratory services, radiologists, hospital administrators, hospital practice designers), IT for Health developers.

Programme

Day 1: Wednesday, April 3th

8:30 Registration

Opening:

9:30 Opening:

Fátima Al-Shahrour, Head of the Bioinformatics Unit, Centro Nacional de Investigaciones Oncológicas (CNIO), Workshop organizer

9:35 *Instituto de Salud Carlos III Welcome:*

Raquel Yotti, *ISCIII Director*

9:45 *CNIO Welcome:*

Maria Blasco*, CNIO Director*

Session I – Prevention.

Moderator: ***Enrique Carrillo***, Head of Computational Biology Unit, IMDEA Research Institute on Food and Health Sciences

Topics: Mobile health apps about nutrition and healthy habits, Information on cancer plans and screening programmes, reducing costs of patient management

10:00 **"Predictive modeling for precision oncology"**

Víctor Moreno, Director of Cancer Prevention and Control Program at ICO, Head of Colorectal Cancer Research Group, Instituto de Investigación Biomédica de Bellvitge (IDIBELL)

10:20 **"Reaching out Personalized Prevention of Pancreatic Cancer"**

Nuria Malats. Head of Genetic & Molecular Epidemiology Group, Centro Nacional de Investigaciones Oncológicas (CNIO)

10:40 **Deep Learning for detecting and classifying colorectal polyps (POLYDEEP project)"**

Daniel González Peña, Head Researcher, SING Group, University of Vigo

11:00 Coffee Break

Session II - Diagnosis & Treatment

Moderator : ***Emilia Roxana Ventel***, European Project Manager, Université Paul Sabatier Toulouse III

Topics: Early diagnostics, Imaging, IT support in decision-making and cognitive support to patients, and caregivers through synchronous (real-time) and asynchronous channels, EHRs, Clinical decision support, Design of new treatments, pharmacy and clinical laboratory support and reporting, scheduling and billing

11:40 **ROUND TABLE: Clinicians Perspective / NGS**

Chair: ***Ramón Colomer Bosch***, Head of the Division of Medical Oncology, Hospital Universitario de La Princesa, Director of the Masters Program in Medical Oncology of the Spanish Society of Medical Oncology (SEOM)

Participants:

- ***Atocha Romero***, Hereditary Cancer Unit, Liquid Biopsy Group, Hospital Universitario Puerta de Hierro:

  "Usefulness of Liquid Biopsies in daily Oncology"

- ***Elena Castro***, Prostate Cancer and Genitourinary Tumours group, Centro Nacional de Investigaciones Oncológicas (CNIO)

  "Implementation of NGS in the clinic : Challenges, myths and reality"

- ***Joaquín Dopazo***, Head of Clinical Bioinformatics Research Area, Fundación Pública Andaluza Progreso y Salud (FPS)

- ***Paolo Maietta***, Head of the Bioinformatics and Development Unit, NIMGenetics.

  "Contributions to clinical cancer diagnostics from a PYME perspective "

- ***Itziar de Lecuona,*** Assistant Director Bioethics and Law Observatory-UNESCO Chair in Bioethics, Universitat de Barcelona.

  "Ethical, legal and societal of personal data treatments"

13:00 Lunch Break (CNIO Cafeteria)

FLASH TALKS: 5-min talks in which companies and organisations have the opportunity to present their products and solutions

Moderator: ***Roi Villar***, Head of Internalization, BioCat.

Participant companies:

- **Savana** (Big data for clinical texts): "Savana: Accelerate Health Science". Presented by Yolanda González, Site Engagement Manager.
- **Kanteron Systems** (Computational Bioinformatics for Precision Medicine) : "Plataforma de Medicina de Precisión: integrando radiología, patología, genómica y farmacogenómica". Presented by Pablo Marín-García, Director of Bioinformatics, and Juan Tatay, COO.
- **Naru Intelligence**. "Clinical decision support for adverse event management". Presented by Maider Alberich, Co-founder & CTO.
- **IOMED** (Text mining of medical texts)
- **HealthQuay**. "HealthQuay. Connecting cancer patients to the best treatment". Presented by Marc Rafat, CEO
- **Atrys Health:** "Multiomics approach for precision oncology: big data and integrative platforms". Presented by Víctor González-Rumayor, R&D Director

15:00 **"Biomedical and clinical text mining efforts in the context of the Plan TL"**

Martin Krallinger, Head of Biological Text Mining Unit, Centro Nacional de Investigaciones Oncológicas (CNIO)

15:20 **Talk**

(TBC)

15:40 **Precision Nutrition as a tool for the integrative management of cancer patients"**

Ana Ramírez de Molina, Deputy Director, Research program Director at IMDEA food - Research Institute on Food & Health Sciences

16:00 **"Onko3D : Simulation of cancer cell proliferation":**

Sylvain Cussat-Blanc, Assistant Professor Institute of Advanced Technologies in Life Sciences (ITAV – CNRS –UMS3505)

16:20 Coffee Break

16:50 **Talk**

(TBC)

17:10 **"Title to be confirmed"**

Jordi Barretina, Director, Institut d'Investigació Biomèdica de Girona - IDIBGI

17:30 **"Title to be confirmed"**

Coral del Val Muñoz, Professor at Soft Computing and Intelligent Information Systems Department, University of Granada

17:50 **Talk**

(TBC)

18:30 NETWORKING EVENT (Cocktail)

Day 2: Thursday, April 4th

8:30 Registration

Session III – Monitoring

Moderator: ***Antonio López***, Clinical Research Programme General Manager, Centro Nacional de Investigaciones Oncológicas (CNIO)

Topics: Treatment adherence monitoring, symptom management, post-hospital management, EHRs

09:15 **"Incorporating wearables in clinical care and trials: current needs in remote monitoring and synergies with technology companies"**

Miguel A. Quintela, Head of the Breast Cancer Clinical Unit, Clinical Research Programme, Centro Nacional de Investigaciones Oncológicas (CNIO)

09:35 **"Collection of PROMS and PREMS through mHealth, a flexible formula to accompany the patient from the center to the periphery (post-hospital management)? "**

Inma Grau, Observatory mHealth Coordinator, Hospital Clinic de Barcelona ; President iSYS Foundation, Volunteer (Grup Agata)

09:55 **"Title to be confirmed"**

Carlos Luis Parra-Calderón. Head of R&i in Biomedical Informatics, Biomedical Engineering & Health Economy, Institute of Biomedicine of Seville

10:15 ***ROUND TABLE: Data management and protection. Ethical and Legal issues***

Chair: ***André Pereira****, Assistant Professor, Centre for Biomedical Law, Faculdade de Direito da Universidade de Coimbra*

Participants :

- ***Anne-Marie Duguet***, Université Toulouse Jean Paul Sabatier, Toulouse.

  "Data management and protection: Access to sensitive clinico-genetic data".

- **Michael Hackenberg**, Professor at Universidad de Granada

  "European Liquid Biopsies Academy project - Towards widespread clinical application of blood- based diagnostic tools"

- **Jordi Rambla**, EGA Project Head at Centre de Regulació Genòmica (CRG)

- **David Gómez-Cabrero**, Head of Translational Bioinformatics Unit, Navarrabiomed

11:30 Coffee Break

Session IV – Symptom Control

Moderator: (TBC)

Topics: Early palliative care, Humanization, Capturing the Patient Experience Across the Continuum of Care, How to overcome the digital breach

12:00 **"Palliative Care – a proposal in onclogy"**

Marília Dourado, Professor at the Faculty of Medicine, University of Coimbra

12:20 **"Patient experience in oncology: empowerment strategies for cancer patients"**

Carlos Bezos Daleske, Managing Director, Institute for the Patient Experience (IEXP)

12:40 **"Accelerating projects in digital health : from patient's need to the solution"**

Raquel Riera, Director of Moebio, Biocat

13:00 Lunch break: CNIO cafeteria

Session V - TransBionet – Translational Bioinformatics: SUDOE Interreg (French, Portuguese and Spanish) perspective

Moderator: ***Pedro Carmona***, Head of Bioinformatics Unit, Centro Pfizer - Universidad de Granada - Junta de Andalucía de Genómica e Investigación Oncológica (GENYO)

14:30 **"TransBioNet: A distributed bottom-up effort to organize bioinformatics activities around the Spanish National Health System"**

Salvador Capella-Gutiérrez, Spanish National Bioinformatics Coordination Node, Barcelona Supercomputing Center – Centro Nacional de Supercomputación (BSC-CNS)

15:00 ***ROUND TABLE: Precision Medicine vs. Genomics Medicine. What is the focus of TransBioNet?***

Chair: ***Alfonso Valencia***, Director of the Spanish National Bioinformatics Coordination Node, Senior Scientist ICREA Institució Catalana de Recerca i Estudis Avançats, Director of Life Sciences Department at Barcelona Supercomputing Center – Centro Nacional de Supercomputación (BSC-CNS)

Participants:

- ***Angela del Pozo,*** Head of Bioinformatics Section. Institute of Medical and Molecular Genetics (INGEMM). Hospital Universitario La Paz
- ***Sheila Zuñiga,*** Coordinator of the Precision Medicine Unit – Bioinformatics Unit, Instituto de Investigación Sanitaria INCLIVA
- ***Ángel Carracedo,*** Universidad de Santiago de Compostela
- ***Isabel Cuesta,*** Unidad de Bioinformática, ISCIII
- ***Sebastián Ventura*** (IMIBIC)

16:30 **Coffee Break**

17:00 **"*GDPR and Spanish Data Protection Law in scientific research*"**

Amelia Martín-Uranga, Responsible of the Spanish Technological Platform for Innovative Medicines, Farmaindustria

17:20 **"Sustainability models for bioinformatics units and groups at healthcare settings"**

Alex Sanchez, Head of Statistics and Bioinformatics Unit (UEB), Vall d'Hebron Institut de Recerca (VHIR)

Closing:

17:00 **FINAL REMARKS**

- *Fátima Al-Shahrour*, Head of the Bioinformatics Unit, Centro Nacional de Investigaciones Oncológicas (CNIO), Workshop organizer
- (TBC) ONCONET Coordinators