



**1<sup>ST</sup>  
EDITION**

# “IRC / I S B - P ADVANCED COURSE ON CANCER BIOLOGY AND THERAPY”

## NETWORK LAUNCHING : MOROCCAN ONCOGENETICS NETWORK - MoON

- Tumor microenvironment and Immunoncology
- Cancer therapy and drug development
- Cancer genomic and precision oncology
- Hereditary Cancer Genetics
- Biobanking and Big data for precision oncology

## HYBRID COURSES

October 20-23, 2021  
Training Center University  
- UM6P - Marrakech  
Kingdom of Morocco

For further information:  
📞 06 62 78 13 27  
✉ [contact@irc.ma](mailto:contact@irc.ma)

# Synopsis

“IRC / ISSB-P advanced course on cancer biology and therapy” is the first educational event in molecular oncology and precision medicine in Morocco.

The course is oriented to oncologists, hematologists, radiotherapists, pathologists, pharmacists, and biologists.

The main objective is to offer an up-to-date course on the molecular oncology, and new therapeutic approaches.

International and national key speakers will provide lectures on different topics in the field of precision oncology ranging from molecular mechanisms to therapeutic applications.

The course will provide workshop sessions developed specifically to discuss the clinical implementation of new technologies into clinical practice.

# Learning objectives

- To understand the basics of cancer development
- To understand the basics of cancer immunotherapy and their applications
- To learn about the current and upcoming molecular approaches to implement precision oncology.
- To understand the challenges regarding the interpretation and the clinical utility of molecular profiling results.
- To learn about current and potential applications of liquid biopsies to evaluate blood-based biomarkers and to develop more effective therapeutic strategies based on a molecular monitoring of the disease.
- To learn about genetic testing and counseling in hereditary cancer for patients and their families

## To launch the “MoON” Network : Moroccan Oncogenetics Network MoON

- Presentation of the MoON 2020-2023: action plan
- Presentation of the National steering committee

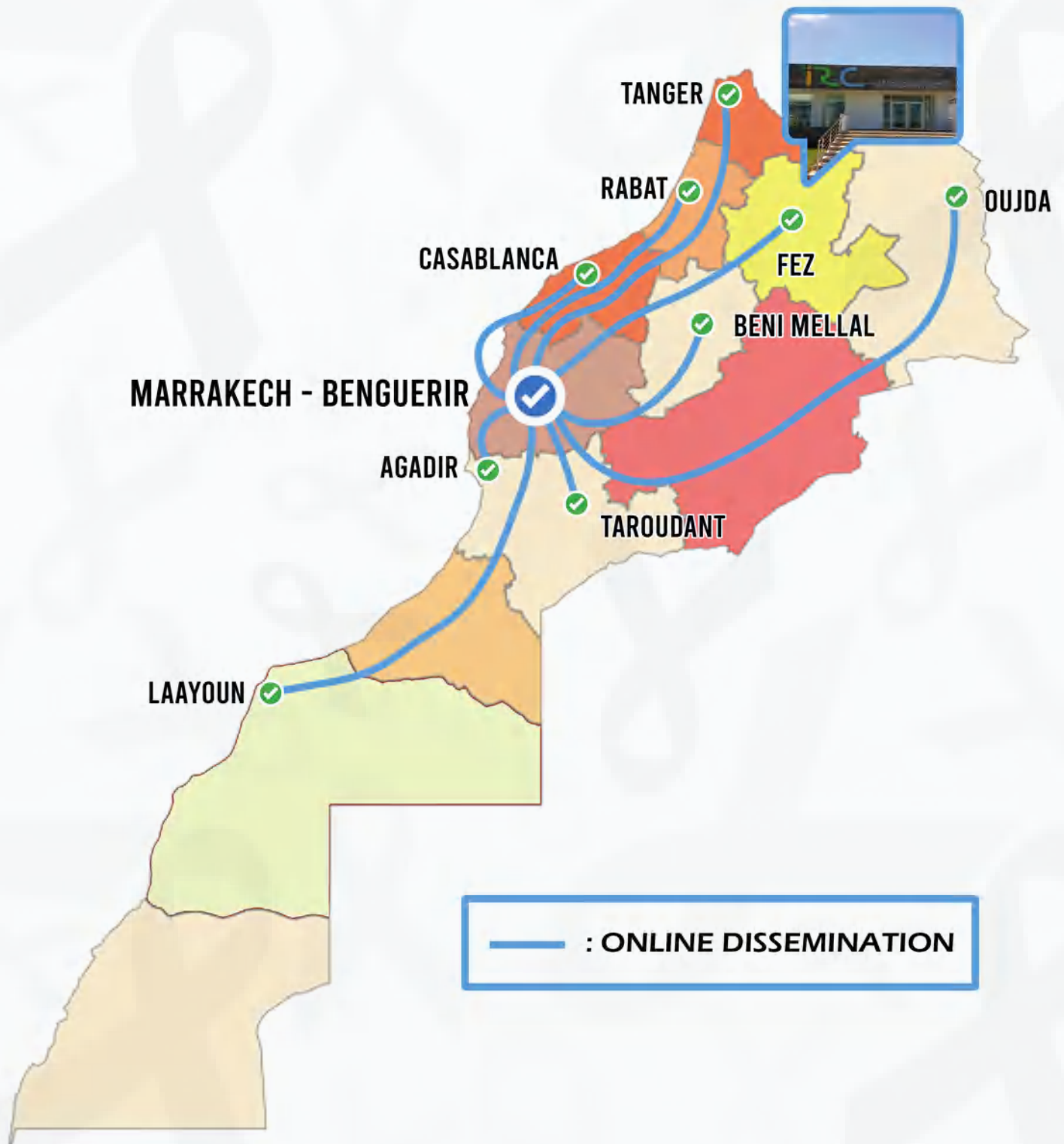
# Key sessions

- Cancer cell and tumor micro-environnement
- Precision medicine: Integrating new technologies into clinical practice
- Hereditary cancer genetics  
Drug development in Oncology

# Target audience

This course is oriented to clinicians (oncologists, radiotherapists, onco-hematologists, Pathologists), pharmacists, and biology researchers interested in molecular oncology. 50 participants will attend the event in person. The meeting will be streamed live and the e-sessions will be available according to the presenter's agreement to release them.

# Hybrid courses



# Program

**October 20th 2021** Reception of the participants, visit of the laboratories and Opening Ceremony

**Day 1  
October 21st 2021** Hereditary Cancer Genetics  
Cancer therapy and drug development

**Day 2  
October 22nd 2021** Cancer genomic and precision oncology  
Biobanking and Big data for precision oncology

**Day 3  
October 23rd 2021** Tumor microenvironment and Immun oncology

**Wednesday**

**October 20th 2021**

**Reception of the participants.  
Visit of the laboratories. Opening Ceremony**

**MOHAMMED VI POLYTECHNIC UNIVERSITY**

**13:00-14:00**

**Welcome and Reception of the participants**

**15:00-16:00**

**Visit of the laboratories  
"MOHAMMED VI POLYTECHNIC  
UNIVERSITY"**

## **Symposium**

**16:00-16:20**

**Symposium Thermo Fisher Scientific  
Precision medicine.**

**16:20-16:40**

**Symposium Illumina  
"Comprehensive Genomic Profiling  
Clinical utility and more..."**

**Fabrice Magnin o, PhD  
Associate Director, Medical Affairs  
EMA Illumina**

**16:30-17:30**

**Opening Ceremony**



**Rachid EL FATIMY**

**Research Director  
Institut Supérieur  
des Sciences  
Biologiques et  
Paramédicales (ISSBP)  
University  
Mohammed IV  
Polytechnic**



**Gabriel Malka**

**Director  
Institut Supérieur des  
Sciences Biologiques  
et Paramédicales  
(ISSBP) University  
Mohammed IV  
Polytechnic**



**Karim OULDIM**

**Director  
Cancer Research  
Institute IRC**



**Sarnia ARIFI**

**Coordinator  
« IRC/ISSB-P  
advanced course on  
cancer biology and  
therapy »**

# Network Launching : Moroccan Oncogenetics Network MoON

17:30-18:30

- Presentation of the MoonN 2020-2023: action plan
- Presentation of the National steering committee

19:00

Dinner cocktail





# Hereditary Cancer Genetics

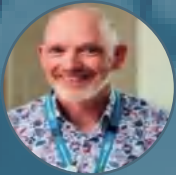

Moderators : Nisrine ABOUSSAIR, Hind DEHBI.

09:00 - 09:15	Introduction	
09:15 - 09:35	Hereditary breast and ovarian cancer: BRCA and beyond	 <b>Siham CHAFAI EL ALAOU</b> Kingdom of Morocco
09:35 - 09:55	Hereditary gastro-intestinal cancer	 <b>Leila BOUGNOUCH</b> Kingdom of Morocco
09:55 - 10:10	Discussion	
10:10 - 10:30	Hereditary syndromes in neuroendocrine tumors	 <b>Ilham RATBI</b> Kingdom of Morocco
10:30 - 10:50	Rare hereditary diseases with defects in DNA repair	 <b>Yassamine DOUBAJ</b> Kingdom of Morocco
10:50 - 11:05	Discussion	
11:05 - 11:30	Coffee break	
11:30 - 12:30	Workshop Genetic testing and counseling in hereditary cancer	  <b>Abdelaziz SEFIANI</b> and <b>Siham CHAF AI EL ALAOU</b>
Lunch		

# Cancer therapy and drug development

Moderator : Nabil ISMAILI ALAOUI






14:00 - 14:20	Drug development in the era of precision medicine	
14:20 - 14:40	Biomarkers: Selection and Validation	Patricia MARTIN ROMANO France
14:40 - 14:55	Discussion	
14:55 - 15:10	The design and evaluation of a new lipophilic Platinum(IV) oxaliplatin derivative	
		Simon BENITA Israel
15:10 - 15:30	Development of new nonchemotherapy treatment for cutaneous T cell lymphomas	
		Armand BENSUSSAN Kingdom of Morocco
15:30 - 15:45	Discussion	
15:45 - 16:15	Coffee break	
16:15 - 16:35	Deciphering leukemia pathogenesis through therapy response.	
		Hugues DETHE France

<p><b>16:35 - 17:55</b></p>	<p><b>Using allogeneic Cord Blood Transplant in Refractory Haematological Malignancy in Children</b></p>	 <p><b>Robert WYNN</b> United Kingdom</p>
<p><b>17:55 - 17:15</b></p>	<p><b>Cell therapy in oncology</b></p>	 <p><b>Anass BELBACHIR</b> Kingdom of Morocco</p>
<p><b>17:15 - 17:30</b></p> <p><b>Discussion</b></p> <p><b>End of day 1</b></p>		

# Cancer genomic and precision oncology

Moderator : EL HFID mohamed

Supported By ROCHE

09:00 - 09:20	Genomic instability and drivers in cancer development	 Houcine OUAFIK France
09:20 - 09:40	Epigenetic changes in cancer: miRNA	 Fadila GUESSOUS Kingdom of Morocco
09:40 - 10:00	New nuclear function for miRNA as a modulator of splicing machinery in Glioblastoma	 Rachid EL FATIMY Kingdom of Morocco
10:00 - 10:15	Discussion	
10:15 - 10:35	Clinical implementation of NGS; organisation and the role of MTB	 Houcine OUAFIK France
10:35 - 11:05	« Molecular tumor board »: case discussion	 Houcine OUAFIK France
11:05 - 11:20	Discussion	
11:20 - 11:40	Coffee break	

**11:40 - 12:00**

**Cytogenetic and  
molecular testing in  
Chronic Lymphocytic  
Leukemia and Multiple  
Myeloma. Practical  
aspects**



**Abdellah MADANI**  
Kingdom of Morocco

**12:00- 12:10**

**Discussion**

## **Metagenomics and cancer**

**12:10 - 12:30**

**Metagenomics :  
new horizon in  
cancer research**






**Keith CRAND ALL**  
United States of  
America

**Lunch**

## Biobanking and Big data for precision oncology



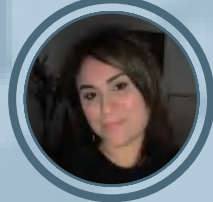

Moderator : **Basma KHANOUSI**




14:00 - 14:20	<b>Biobanking: why it is important?</b>	
14:20 - 14:40	<b>Artificial intelligence and Big data in oncology</b>	<b>Kurt ZATLOUKAL</b> Austria
14:40 - 15:00	<b>OSIRIS a model of Data Set for Data Sharing and Interoperability in Oncology</b>	
		<b>Maud TOULMONDE</b> France
15:00 - 15:15	<b>Discussion</b>	
15:15 - 15:30	<b>Symposium Thermo Fisher Scientific Oncogenomics</b>	
15:30 - 16:00	<b>Coffee break</b>	
16:00 - 16:20	<b>Ethical issues regarding Big Data in Research</b>	
		<b>Henry Silverman</b> United States of America, U.S.A



# Tumor microenvironment and Immunoncology

Moderator : Samia ARIFI

09:00 - 09:20	Tumor micro-environment	 <p>Florent PETIPREZ United Kingdom</p>
09:20 - 09:40	Tumor immunology	 <p>Mohammed EL AZAMI EL IDRISI Kingdom of Morocco</p>
09:40 - 10:00	Antigen receptors as molecular switches regulating inflammation	 <p>Sanae BEN MKADDEM Kingdom of Morocco</p>
10:00 - 10:15	Discussion	
10:15 - 10:30	Coffee break	
10:30 - 10:50	Anti PD1/PD-L1 immunotherapy and current predictive biomarkers  <b>-Symposium MSD -</b>	 <p>Saber Boutayeb Kingdom of Morocco</p>

<b>10:50 - 11:10</b>	<b>How does CART-cell therapy work in treating cancer?</b>	 <b>Antonio CARRASCO YALÁN</b> Peru
<b>11:10 - 11:25 Discussion</b>		
<b>11:25 - 11:45</b>	<b>Biomarkers in immuno-oncology</b>	 <b>Hicham EL ATTAR</b> Kingdom of Morocco
<b>11:45 - 12:05</b>	<b>Pronostic and predictive value of the immunoscore in patients with colorectal cancers</b>	 <b>Franck PAGÈS</b> France
<b>12:05 - 12:25</b>	<b>Mechanisms of resistance to immunotherapy</b>	
<b>12:25 - 12:40 Discussion</b>		
<b>Synthesis and feedback from attendees</b>		
<b>End of day 3</b>		

# Speakers



**Samia, ARIFI  
MD, Professor**

**Kingdom of Morocco**

**Coordinator**

**Professor in cell biology and Medical Oncologist**

**Department of Medical Oncology,  
University hospital Hassan II Fez,  
Faculty of Medicine and Pharmacy-  
Fez, Sidi Mohamed Ben Abdellah  
University(USMBA)- Fez.**

**Scientific Council member of Cancer  
Research Institute, IRC**



**Abdelaziz SEFIANI  
MD, PhD**

**Medical geneticist  
- Professor  
Kingdom of Morocco**

**Medical geneticist - Professor, Head  
of Medical Genetics Department ,  
INH Rabat  
Faculty of Medicine and Pharmacy,  
University Mohammed V, Rabat.**



**Abdellah Madani**

**MD  
Professor**

**Kingdom of Morocco**

**Hematology-oncology - Professor**

**Head of clinical hematology and  
pediatric oncology department Ibn-  
Rochd University hospital,  
Casablanca,**

**President of the Moroccan Society  
of Hematology.**

**Faculty of Medicine and Pharmacy,  
Hassan II Ain Chock University -  
Casablanca**



**Anass BELBACHIR**  
MD, Professor  
  
Kingdom  
of Morocco

**Professor of Pathology,**

**Head of Center for Regenerative  
Medicine Mohammed VI University  
Hospital of Marrakech  
Faculty of Medicine and Pharmacy  
Marrakech**

**University Cadi Ayyad of Marrakech,**

**Scientific Council member of Cancer  
Research Institute 'IRC'**



**Yalán Antonio  
CARRASCO**  
MD  
  
Peru

**Clinical Hematologist**

**Postdoctoral fellow of the University  
of Texas, MD Anderson Cancer Center,  
Houston, USA..**

**Past Head of Hematology Service  
of the Hematopoietic Progenitor  
Transplant Department of the  
National Institute of Child Health  
San Borja, Lima, Peru.**

**Hematologist doctor of the Anglo  
American Clinic and Delgado Clinic -  
AUNA.**



**Armand  
BENSUSSAN**  
MD, PhD,  
Professor  
  
Kingdom of Morocco

**Affiliated Professor University  
Mohammed IV Polytechnic**

**Ben Guérir, Kingdom of Morocco  
Past chief of the Skin Research  
Center and of the INSERM unit 976 at  
Saint-Louis Hospital, Paris,  
Past Director Emeritus at INSERM,  
Scientific Director of the Cancer  
Institute Jean Godinot in Reims,  
France**



**Basma KHANOUSSI**  
**MD,**  
**Professeur**

**Kingdom of Morocco**

**Professor of Pathology,**

**Head of Department of Oncology-  
Pathology**

**National Institute of Oncology (INO),  
Rabat**

**Faculty of Medicine and Pharmacy -  
Rabat.**

**University Mohammed V, Rabat.**

**Scientific Council member of Cancer  
Research Institute 'IRC**



**Fadila GUESSOUS**  
**PhD,**  
**Professor**

**Kingdom of  
Morocco**

**Professor of Immunology and  
Cancer Biology**

**Mohammed VI University of Health  
Sciences (UM6SS), Faculty of  
Medicine, Casablanca, Morocco**

**Adjunct Associate Professor of  
Immunology and Cancer Biology at  
Medical School, University of  
Virginia, USA**



**Farid Hakkou**  
**MD, PhD,**

**Kingdom  
of Morocco**

**Clinical Pharmacology and biology  
- Professor Past Head of clinical  
pharmacology and head of biology  
department University King  
Hassan II hospital, Faculty of  
médecine Casablanca, Director of  
biology and medical research  
laboratory : Laboasis Casablanca  
President of ethical research  
comitee Faculty of médecine  
Casablanca,**



**Florent PETIPREZ**

**PhD,**

**United Kingdom**

**PhD Team Cancer, Immune Control and Escape, Centre de Recherche des Cordeliers, INSERM, Paris, France.**

**Centre de Recherche des Cordeliers, Sorbonne University, Paris, Affiliated to « Programme Cartes d'Identité des Tumeurs », launched by Ligue Nationale Contre le Cancer, Paris, Actual Affiliation MRC Centre for Reproductive Health, the Queen's Medical Research Institute, University of Edinburgh, United Kingdom.**



**Franck PAGÈS**

**MD, PhD,  
Professor**

**France**

**- Professor of Immunology at the Faculty of Medicine of the Paris University.**

**- Deputy Director of the Biological Immunology Department at the Georges Pompidou European Hospital (HEGP) in Paris.**

**- Head of the immunomonitoring platform, where the "Immunoscore" test was designed and is performed, of which he is the co-inventor.**

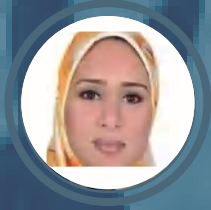
**- Head of a research group within the "Integrative Cancer Immunology Team" whose research theme is the analysis of the immune component of the tumor microenvironment.**



**Henry Silverman**  
MD, MA Professor  
U.S.A

**Professor of Medicine ; Epidemiology & Public Health, University of Maryland, School of Medicine, United States of America,**

**Medical Ethics • Research Ethics • Distance Learning Education)**

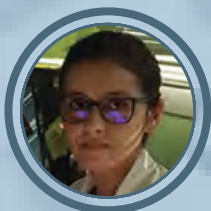


**Hind DEHBI**

**MD Professor**

**Kingdom of Morocco**

**Medical geneticist – Professor, Head of Medical Genetics Department , Ibn-Rochd University hospital, Casablanca, Faculty of Medicine and Pharmacy, Hassan II Ain Chock University - Casablanca,**



**Hind EL FATEMI**  
MD,  
Professor

**Kingdom of Morocco**

**Professor of Pathology,**

**Head of Department of Pathology, University hospital Hassan II Fez, Faculty of Medicine and Pharmacy- Fez, Sidi Mohamed Ben Abdellah University(USMBA)- Fez**



**L'Houssine OUAFIK**  
MD, PhD  
Professor

**France**

**Professor (PU-PH), Biochemistry, Molecular and Cellular Biology Team Leader, Team 10 INP UMR 7051, School of Medicine, Marseille, France. Head of “ Service d’OncoBiologie ” AP HM, CHU Nord, Marseille, France.**



**Hugues DE THE**  
MD, PhD  
Professor  
  
France

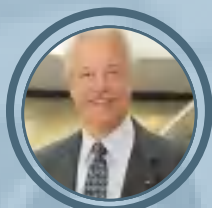
**Professor of Universities and Hospital Practitioner (PU-PH) at Paris-Diderot University**  
**Director of the CNRS unit "Molecular pathology and virology", Saint-Louis Hospital**  
**Associate Professor, JiaoTong University, Shanghai Head of the biochemistry-molecular biology department,**  
**Director of the Inserm 944 /CNRS/ University of Paris- Saint-Louis Hospital, since 2010.**  
**Director of an international Inserm/ CNRS associated laboratory, Chen Zhu, RuiJin Hospital, Shanghai, China**



**Ilham RATBI**  
MD, PhD, Professor

**Kingdom of Morocco**

**Medical geneticist – Professor,**  
**Medical Genetics Departement , INH Rabat**  
**Faculty of Medicine and Pharmacy, University Mohammed V, Rabat.**



**Keith CRANDALL**  
PhD  
Professor  
  
U.S.A

**Director of the Computational Biology Institute at George Washington University.**  
  
**Computational biology , population genetics, and bioinformatics of a variety of organisms, from crustaceans to agents of infectious diseases United States of America**  
**U.S.A**



**Kurt ZATLOUKAL**  
MD, PhD, Professor  
of Pathology

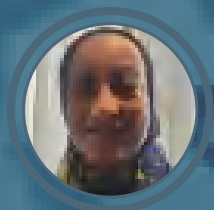
**Austria**

**Professor of Pathology Director of Diagnostic and Research Center for Molecular BioMedicine, Medical University of Graz Director of the Austrian National Node of Research Infrastructure on Biobanking and Biomolecular Resources – BBMRI. at**



**Karim OULDIM**  
MD,  
Medical geneticis  
– Professor  
Kingdom of Morocco

**Professor of medical genetics and oncogenetics  
Director of Cancer Research Institute IRC  
President of Scientific Council (Cancer Research Institute IRC) ,**



**Leila BOUGNOUCH**  
MD  
Professor  
Kingdom of Morocco

**Medical geneticist – Professor**

**Head of medical genetics and oncogenetics Unit , University hospital Hassan II Fez, Faculty of Medicine and Pharmacy- Fez, Sidi Mohamed Ben Abdellah University(USMBA)- Fez.**



**Maud TOULMONDE**  
MD, PhD  
France

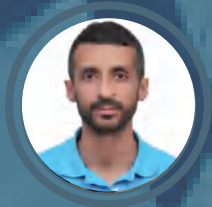
**Medical Oncologist  
Early Phase trial and Sarcoma Units  
Department of Medical Oncology  
Institut Bergonié, Bordeaux, France  
Focus of interests on clinical research in phase I/II/III trials in sarcoma and phase I/II trials in all tumor types;  
Translational research in sarcoma, omics, pharmacodynamic biomarkers for immunotherapy**



**Mohammed EL AZAMI**  
**EL IDRISSE**  
**MSc, PhD**  
**Professor**

**Kingdom of Morocco**

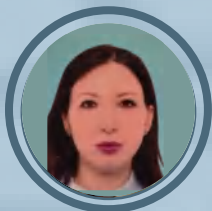
**Professor of Immunology**  
**Vice Dean for Research and**  
**Cooperation of the Faculty of**  
**Medicine and Pharmacy- Fez, Sidi**  
**Mohamed Ben Abdellah**  
**University(USMBA)- Fez.**  
**University hospital Hassan II Fez,**



**Nabil ISMAILI**  
**ALAOUI**  
**MD,**  
**Professor**

**Kingdom of Morocco**

**Medical Oncologist Professor**  
**Faculty of Medicine - Mohammed VI**  
**University of**  
**Health Sciences UM6SS of Casablanca**  
**Sheikh Khalifa Ibn Zaid Hospital of**  
**Casablanca Referee**  
**in medical oncology at the University**  
**Hospital Sheikh**  
**Khalifa.**  
**Vice-president of the Moroccan Cancer**  
**Society**



**Nisrine ABOUSSAIR**  
  
**MD Professor**

**Kingdom of Morocco**

**Medical geneticist – Professor, Head**  
**of Medical Genetics Department,**  
**Mohammed VI University Hospital of**  
**Marrakech Faculty of Medicine and**  
**Pharmacy Marrakech**  
**University Cadi Ayyad of Marrakech**



**President, Morocco's National  
Commission for the Control of  
Personal Data Protection (CNDP)**

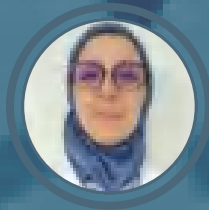
**Omar SEGHROUCHNI**  
Kingdom of Morocco



**Patricia MARTIN  
ROMANO**  
MD, PhD

**France**

**Medical Oncologist, Drug  
Development Department (DITEP) at  
Gustave Roussy  
Doctor of Philosophy (PhD) Oncology  
and Cancer Biology  
Master on Statistics for Life Science  
Master's degree Immunology and  
Oncology**



**Siham CHAFAI  
EL ALAOUI**  
MD, PhD,  
Medical geneticist  
- Professor  
Kingdom of Morocco

**Medical geneticist - Professor,  
Medical Genetics Department, INH  
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Faculty of Medicine and Pharmacy,  
University Mohammed V, Rabat.**



**Rachid EL FATIMY**  
PhD,  
Professor  
Kingdom of Morocco

**Professor of molecular biology  
University Mohammed IV  
Polytechnic, Ben Guérir  
Director of the Center for Doctoral  
Studies at UM6P University.  
Actual research Postdoctoral  
training at Laval University (Canada)  
and researcher at Harvard Medical  
School Harvard Medical School  
(USA).**



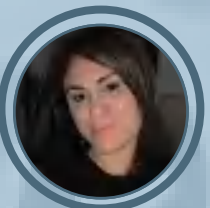
**Robert WYNN**  
MD, PhD, Professor  
United Kingdom  
UK

**Professor of Pediatric Hematologist  
Manchester University NHS  
Foundation Trust (MFT) London Consul  
tant Pediatric Hematologist &  
Director of Pediatric Bone Marrow  
Transplant Program.**  
Blood and marrow transplant in  
pediatrics, especially in inborn errors  
of metabolism, Stem Cell Gene  
Therapy in Pediatric Hematology and  
metabolic disorders, HLH, Diagnostic  
Pediatric Hematology.



**Saber Boutayeb**  
MD, PhD  
Professor  
Kingdom of  
Morocco

**Professor of medicale oncology**  
**Department of Medical Oncology  
National Institute of Oncology (INO),  
Rabat**  
**Faculty of Medicine and Pharmacy -  
Rabat.**  
**University Mohammed V, Rabat.**



**Sanae BEN  
MKADDEM**  
PhD, Professor  
Kingdom  
of Morocco

**Professor of Immunology and  
physiopathology**  
**University Mohammed IV Polytechnic,  
Ben Guérir**  
**Past researcher in French Institute of  
Health and Medical Research  
| Inserm · Center Research on  
inflammation**



**Simon BENITA**  
PhD, Professor  
Israel

### **Professor of Pharmaceutics**

**Institute for Drug Research, Research focuses on lipid and polymeric nano and microparticulate drug delivery systems aimed at improving the therapeutic performance of active ingredients. School of Pharmacy, Faculty of Medicine, The Hebrew University of Jerusalem.**



**Yassamine DOUBAJ**  
MD, PhD  
Medical geneticist -  
Professor  
Kingdom of Morocco

### **Medical genetics and oncogenetics**

**Head of onco-hematology  
cytogenetics Unit**

**Medical Genetics Departement ,  
INH Rabat**



**EL HFID mohamed**  
MD,  
Professor

### **Professor of radiotherapy**

**Head department of radiotherapy  
Faculty of Medicine and Pharmacy-  
Tangier ,  
Abdelmalek Essaâdi University  
- Tangier**

**Kingdom of Morocco**

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