

Introduction

INCa is happy to welcome you to this international meeting on comparative oncology in Nantes.

This strategic area of research has been supported and led by INCa since 2009 by mobilising the different research communities (biologists, clinicians and veterinarians) through specific seminars and meetings. Since 2011, together with AVIESAN/ITMO Cancer we have supported the development of spontaneous tumour models and alternatives to clinical trials through an annual competitive call for proposals.

The resulting dynamic allowed establishing collaborations and exchanges with European countries and the US NCI Comparative Oncology Trials Consortium.

This two-day meeting aims to foster discussion and drive collaborations to expedite translation into clinical practice in comparative oncology. The meeting will be driven by featuring leading researchers, clinicians and scientists both in human and animal oncology. A state-of-the-art will be delivered and tumour-specific issues sessions organised.

Fabien CALVO

Deputy Director General / Director of Research and Innovation
INCa and ITMO Cancer/AVIESAN

Programme

Wednesday 15 January: Venue: ONIRIS

1.00 – 2.00	Registration and welcome
2.00 – 2.15	Introduction and Welcome address Prof. Fabien CALVO, Institut National du Cancer and ITMO Cancer/Aviesan
2.15 – 3.45	State of the art: what has been done so far? <ul style="list-style-type: none">France: Jérôme ABADIE, DVM, PhD, ONIRIS, Nantes - Catherine ANDRE CNRS-University of RennesEurope: Stefano COMAZZI, DVM, PhD, University of MilanUSA: : Chand KHANNA, DVM, PhD, National Cancer Institute
3.45 – 6.00	Parallel sessions: presentations and discussion BREAST <i>room 218</i> Chairs: Mario CAMPONE, MD, Cancer Centre, Nantes and Jérôme ABADIE, DVM, PhD, ONIRIS, Nantes <ul style="list-style-type: none">Biopathology: drafting a parallel between human and dog - Jérôme ABADIEFrom a molecular point of view: transcriptomics-genomics - Pascal JÉZÉQUEL Environnent: <ul style="list-style-type: none">Contaminants and adipose tissue - Jean-Philippe ANTIGNACObesity and cancer – Laetitia JAILLARDON LYMPHOMA <i>room 215</i> Chairs: Steven Le GOUILL, MD, University Hospital, Nantes/Patrick DEVAUCHELLE, MICEN VET, Veterinary Oncology Centre, Créteil <ul style="list-style-type: none">Biopathology: Frédérique NGUYEN/Anne MOREAUMolecular biology: Catherine THIÉBLEMONTExperience on clinical trial in animal: Olivier HERMINERadioimmunotherapy: François DAVODEAU SARCOMA <i>room 217</i> Chairs: Jean-Yves BLAY, MD, Cancer Center Lyon, French Sarcoma Group (GSF- GETO)/Chand KHANNA, DVM, PhD, National Cancer Institute <ul style="list-style-type: none">Osteosarcomas and soft-tissue sarcomas in human: Jean-Yves BLAYOsteosarcomas in canine model: Chand KHANNASoft tissue sarcomas in dogs: focus on histiocytic sarcoma: Benoît HÉDAN MELANOMA <i>room 216</i> Chairs: Eve MAUBEC, MD, Bichat Hospital, Paris/Catherine ANDRÉ, CNRS-University of Rennes <ul style="list-style-type: none">Epidemiologic, clinical, histological and genetic characterizations in human: Eve MAUBECEpidemiologic, clinical, histological and genetic characterizations in dogs: Catherine ANDRÉTherapeutics in human melanoma: Eve MAUBEC
6.00 – 7.00	Visit of the ONIRIS Veterinary School
8.30	Diner: venue: Novotel, Cité des Congrès, Nantes

Thursday 16 January: Venue: Nantes events centre

8.30 – 10.30	Presentation of Aviesan-ITMO cancer funded projects on spontaneous tumours models in animals and questions, Chair: Patrick DEVAUCHELLE <ul style="list-style-type: none">● Catherine ANDRE Canine spontaneous melanoma: Comparative genetic and mechanistic analyses of human and canine melanoma pathways● François DAVODEAU<ul style="list-style-type: none">- Preclinical trial of radioimmunotherapy of spontaneous Diffuse Large B-Cell Lymphoma (DLBCL) in the dog model- Monoclonal antibodies for Imaging and Radioimmunotherapy of B-cell lymphoma in Small Animals● Caroline LEROUX Lepidic pulmonary adenocarcinomas: from sheep to human● Catherine THIEBLEMONT Develop dog-ized antibodies for translational cancer research on lymphomas● Georges VASSAUX Towards an oncolytic vaccinia virus targeting high-grade breast carcinoma.● Fany BLANC Immunity to regressive melanoma in a swine spontaneous model of cutaneous melanoma
10.30 – 10.45	Coffee break
10.45 – 12.00	Feedback from Day 1 parallel sessions (by session chairs)
12.00-1.00	Lunch
1.00 – 2.30	General discussion: outcome, perspectives and funding aspects, Chair: Robin FAHRAEUS Discussants: Mario CAMPONE, Jérôme ABADIE, Steven Le GOUILL , Patrick DEVAUCHELLE, Chand KHANNA, Catherine ANDRÉ and Eve MAUBEC
2.30 – 3.00	Wrap-up and conclusion Frédérique NOWAK , Institut National du Cancer

Participants' biographies

Fabien CALVO

National Cancer Institute-France



Fabien CALVO, MD PhD, Deputy General Director of the National Cancer Institute, France, has been in charge of the Research Programmes since 2007. Fabien CALVO is also the director of the Cancer Multi-Institution Alliance (including INSERM, CNRS, Universities and University- hospitals) in France.

Previously resident and senior registrar of Paris Hospitals, research associate of the National Cancer Institute in Bethesda (NIH/NCI/DCT, USA), he specialised in oncology and haematology. He is currently professor of pharmacology at the Denis Diderot Medical University in Paris.

He has been the director of the Saint-Louis Hospital CIC (clinical investigation centre) and he was the director of INSERM unit 716 on the identification of new molecular targets for the treatment of cancer from 1995 to 2008. He is a board member of the post-graduate school “oncogenesis fundamental basis”. He also headed the clinical research programmes in cancer in the Paris area. He has published more than 200 original and review articles.

He also worked as a coordinator of the cancer mission for the Director of the Research and Innovation department, Ministry of Research and Higher Education in 2006 and 2007.

His spheres of activity and interest are the biology of metastatic processes, especially proteases, translational research, preclinical pharmacology and early clinical trials in haematology and oncology.

Jérôme ABADIE

ONIRIS, AMaROC, Nantes-France



Jérôme ABADIE is Doctor in Veterinary Medicine, titular of a PhD in Biology and Health research, and diplomate of the French and European College of Veterinary Pathology with special recognized expertise in veterinary and comparative oncologic pathology. Jérôme Abadie is Assistant Professor in Pathology at Oniris, Veterinary School of Nantes, and Director of the research unit AMaROC ("Animal cancers, Models for Research in comparative OnCology").

This research unit focuses on two areas: (i) the study and characterization of spontaneous cancers in domestic carnivores (dogs and cats), and their relevance as models for comparative oncology, with special interest in cancer types selected for their homology with human ones and for their high frequency in pets: mammary carcinomas, malignant lymphomas, osteosarcomas, melanomas and gliomas; (ii) the application of the above-listed models to cognitive studies and preclinical trials, particularly in nuclear medicine.

To date, the AMaROC unit has coordinated and been associated as partner to several research projects related to comparative and translational research in oncology on spontaneous models, including, as examples:

- Phenotypic and molecular characterization of canine and feline mammary carcinomas and diffuse large B cell lymphomas as model of human homologous cancers and studies on risk factors particularly those linked to environment (contaminants) and behavior (obesity)
- Imaging and nuclear medicine preclinical program and trials on canine lymphoma (supported by INCa and Aviesan program on Spontaneous Model of cancers)
- Innovative nanovectorized therapeutic trial on canine gliomas based on stereotaxic injection of radioisotopes in the neoplastic tissue

Catherine ANDRE

CNRS Unit, School of Medecine, Rennes University-France



1992-1993: CNRS Staff Young Scientist: Dept. of Hematology, Hôpital St Louis, Paris: Human oncology and genomic projects

1994-2006: CNRS Staff Scientist: School of Medicine Rennes, France: Canine genomics and genetics

2006-Present: Head of the “Canine Genetics” team CNRS Unit, School of Medicine, Rennes University, France

C. André belongs to the National French Veterinary Academy and to the National evaluation committee of CNRS

Dr. André’s research interest is in canine genetics and genomics, to use this naturally occurring diseases model to unravel the genetic bases of homologous human genetic diseases such as cancers, skin and neuro-sensoriel diseases. The team, first led by Prof. Francis Galibert has developed numerous genetic tools (markers, sequences, comparative maps ...) to be able to perform genetic analyses. In the same time Catherine André developed a Bio-Bank of canine samples for biomedical studies, to be used for the benefit of dogs and humans. The team has long worked on human homologous cancers, in several at risk breeds, to determine the predisposing genes and tumour progression genetic alterations. Main subjects are melanomas and Histiocytic Sarcoma, for which the team recently developed a genetic risk test in the Bernese Mountain dog breed. More recently, the team works on lymphoma, glioma and mast cell tumours. The team recently identified a novel ichthyosis gene in the Golden retriever breed which has also been demonstrated to be responsible of an ARCI Ichthyosis in humans. The team developed a genetic test for ichthyosis in Golden retrievers (with a patent). The ultimate goal of these research projects is to translate results obtained in dogs to patients to better understand the physiopathology of the diseases and to ultimately develop effective therapies for a mutual benefit for dogs and humans.

Stefano COMAZZI

DIVET, University of Milan, Italy



Colleges and societies:

Diplomate European College of Veterinary Clinical Pathology (ECVCP),
In charge President of the European Society of Veterinary Clinical Pathology (ESVCP)
Chair of the European Canine Lymphoma Network (www.eu-can-lymph.net)

Professional activities

1995-1999: Medical Director of a private veterinary laboratory in Milan

1999-2007: permanent position as Assistant Professor in the University of Milan, Department of veterinary science and public health”.

Main research topics

- Lympho-myeloproliferative diseases of small animals
- Flow cytometric aspects of different veterinary diseases
- Aspects of specific and non-specific immunity in small and large animals

Teaching activities

- Academic courses:
 - “metabolic diseases of peripartum” for students in animal science (2003 to nowadays), University of Milan
 - “Hematopoietic neoplasms” for students in veterinary medicine (2004 to nowadays), University of Milan
 - “Hematopoietic diseases” for students in veterinary medicine (2004 to nowadays), University of Milan
 - “Veterinary Microbiology” for students in animal science (2008-09), University of Udine
 - “clinical pathology laboratory techniques” for students in animal science (2009 to nowadays), University of Udine
- Others:
 - lectures held for Italian or international scientific or professional societies
 - Invited speaker to Italian and International meetings
 - lectures for post-graduate and PhD students in several Italian veterinary schools

Publications

Author or co-author of more than 60 papers on international peer-reviewed journals and more than 130 proceedings at Italian or international congresses

Author of chapters on Italian or international books, concerning different fields of veterinary clinical pathology, by which the last edition (VI) of Schalm’s Veterinary Hematology

Member of of the Editorial Board of Veterinary Clinical Pathology journal (2007-2009)

Reviewer for several international peer reviewed journals.

Chand KHANNA

National Cancer Institute, Center for Cancer Research, Bethesda-USA



Chand Khanna DVM, PhD completed his veterinary training at the Western College of Veterinary Medicine in 1991. He then received specialty training in the fields of veterinary internal medicine and oncology first at the Ontario Veterinary College, University of Guelph and then the University of Minnesota. Dr. Khanna is a board-certified diplomate of the American College of Veterinary Internal Medicine (Oncology). Following this clinical specialization Dr. Khanna received a PhD in Pathobiology from the University of Minnesota and then completed a post-doctoral fellowship with Dr. Lee Helman in the Pediatric Oncology Branch of the National Cancer Institute in Bethesda Maryland.

Dr. Khanna continued his work at the National Cancer Institute as the Head of Pediatric Oncology Branch's Tumor and Metastasis Biology Section, and Director of the Center for Cancer Research, Comparative Oncology Program. In 2011, Dr. Khanna was granted full tenure and promoted to the position of Senior Investigator at the National Cancer Institute. His research interests and responsibilities have been focused on the problem of cancer metastasis and the development of new options to treat patients with metastasis. He has over 100 publications in the area of cancer biology and therapy. In 2013, Dr. Khanna transitioned his work at National Cancer Institute to that of a Strategy and Research Consultant with the Center of Cancer Research.

Dr. Khanna has maintained a strong connection to the field of veterinary oncology and animal health. He is an active clinician within his referral oncology practices, The Oncology Service, LLC, based in the greater Washington DC area. He is founder of Animal Clinical Investigation, a contract research company, involved in complex medical problems seen in pet animals. Dr. Khanna has recently expanded his efforts as a consultant to Animal Clinical Investigation and has engaged in additional opportunities to bridge his interest in both animal and human health. Dr. Khanna is past-president of the American College of Veterinary Internal Medicine in Oncology, the chair of the Children's Oncology Groups Bone Biology Subcommittee, director of the SARC (Sarcoma Alliance for Research through Collaboration) Developmental Therapeutics Committee. Dr. Khanna is a founding member of the Canine Comparative Oncology and Genomics Consortium. Dr. Khanna is a two-time recipient of the NCI Distinguished Mentor Award.

Mario CAMPONE

Institute of Oncology of the West / ICO René Gauducheau site, Saint-Herblain-France

Pr. Mario Campone, is currently in hospital practitioner specialist of Medical Oncology in the Rene



Gauducheau Center now Institute of Oncology of the West / ICO Rene Gauducheau site. The candidate holds Medical Doctor and qualification on Medical Oncology (1998). In addition, he holds a LBA in Cell Biology and a Doctorate of University life science discipline and health. Since September 2012 is Professor of medical oncology of the university of Angers. He is involved in tasks of care, research, teach and institutional.

In clinical research he has been and is involved since 2003 as coordinator and Principal Investigator in numerous clinical studies of new agent therapeutic expertise in breast pathology and glial tumors. It is responsible for the Phase I unit labeled by INCA. In translational research and related institutional research, integrating the team led by Dr. June UMR-INSERM U892, creating the mixed group ORPHEO with the National Veterinary School of Nantes, by interacting with the platforms of transcriptomics and proteomics of the ICO Institut. These activities are to determine the prognostic factors in breast cancer as well as factors predictive of response to targeted therapies.

Pascal JEZEQUEL

Institute of Oncology of the West / ICO René Gauducheau site, Saint-Herblain-France

Medical biologist working in biopathology department of Integrated Cancer Centre (ICO) René Gauducheau, Saint Herblain (France). Head of genomics unit (UMGC; Affymetrix platform), involved in biostatistical mining of genomic data (development of bc-GenExMiner web tool). Member of INSERM U892 unit (team 8 "Cell survival and tumor escape in breast cancer"), Nantes. My research projects aimed at identifying and validating breast cancer biomarkers by means of transcriptomics and in silico studies with the goal of personalized medicine.

Jean-Philippe ANTIGNAC

ONIRIS, LABERCA, Nantes-France



Jean-Philippe Antignac is engineer and PhD graduated in analytical chemistry, and a scientist belonging to the National Institute of Agronomic Research (INRA). He is since 2007 the scientific officer of LABERCA, which is a research Unit working in the areas of chemical food safety and environmental health. He is also contributing to public expertise working groups for INSERM and the French Food Safety Agency (ANSES). His competence areas are the analysis of organic chemical residues and contaminants in biological matrices for risk assessment and environmental health purposes. His specific research field is the study of endocrine disrupting chemicals from a human exposure assessment point

of view. Through various collaborations he is also involved in several projects studying the relation between this human environmental chemical exposome and reproductive and developmental functions or hormono-dependent cancers. The development and application of global chemical phenotyping approaches such as metabolomic or lipidomic is another component of his research activities for identifying biomarkers and/or biological signatures associated to a given exposure or a given effect.

Laetitia JAILLARDON

ONIRIS, Nantes-France



Laetitia Jaillardon, Doctor in Veterinary Medicine (2005) and graduate of the European College of Veterinary Pathology (2013). She is currently in 3rd year thesis of doctorate in Sciences at Oniris in comparative oncology and endocrinology.

Steven LE GOUILL

Hôtel-Dieu, Nantes Medical University-France

Prof. Steven Le Gouill is in charge of the Lymphoma research program and Early Phase Clinical



Investigations in Haematology Unit at Nantes Medical University (France). He is a member of the LYSA group and is co-chairman of the Mantle cell lymphoma (MCL) committee. As an expert in the treatment of Mantle Cell Lymphoma, Prof. Le Gouill participated to the ESMO Consensus conference guidelines for treatment of MCL. He is also involved in basic research in MCL (Team 10, INSERM UMR892, Nantes, France), the team investigates apoptosis dysregulations in MCL cells.

Prof. Le Gouill is 43 years old and graduated M.D. with specialization in Haematology from Nantes Medical University in 1999. He started his professional Haematology career at the Department of Nantes where he did his fellowship and where he became Assistant Professor and Associate Professor. He is a former Research Associate of the Department of medical oncology of Dana-Farber Cancer Institute (Harvard Medical School, Boston. USA) and graduated Ph.D. with specialization in “blood cells biology” from Paris VII University (France). Since 2010, he is Professor of Haematology at the Medical University of Nantes, France.

Patrick DEVAUCHELLE

MICEN VET, Créteil-France



Doctor in Veterinary Medicine (DVM), University of Toulouse, France 1974.

Office : MICEN VET 58 rue Auguste Perret, Z.A Europarc, 94000 Créteil - France.

patrick.devauchelle@wanadoo.fr

Career :

- Assistant Professor Histopathology, Veterinary school Toulouse, 1976-80, creation of the first oncology clinic in the Veterinary school ;
- Oncology visiting Professor, Veterinary school Lyon, 1985-2003, Head of the clinic;
- Responsible of oncologic teaching in the French Veterinary schools of Nantes, Lyon, Alfort and Toulouse;
- Oncology Consultant for the Certificate of internal medicine specialization (CEAV);
- Co-founder with Docteur F Delisle and Director of Animal Oncologic Center Maisons Alfort 1989-(present).

This center is equipped with specific imaging techniques such as tomodensitometry, MRI, scintigraphy and specific treatment such as chemotherapy, immunotherapy and radiotherapy.

- Diplome of the European College of Veterinary Internal Medicine (Oncology) 2007.

Other activities

- Co-author of the only French oncology book (Cancérologie clinique du Chien 2000);
- President of the Veterinary Oncology Group of CNVSPA-AFVAC (since 1997);
- Author of many veterinary oncology and comparative oncology publications.

Frédérique NGUYEN

ONIRIS, AMaROC, Nantes- France



Doctor in Veterinary Medicine, Associate Professor in Veterinary Pathology at Oniris (since 1997), graduate of the European College of Veterinary Pathology (ECVP 2002), head of the autopsy hospital department at ONIRIS, member of the research unit AMaROC ("Animal Cancers, Models for Research in Comparative Oncology").

Anne MOREAU

Hôtel-Dieu, Nantes Medical University-France

Specialist in Pathology since 1991.

Referent in haematopathology.

Expert in the network Lymphopath, certified by the INCA, since 2010.

Member of Lymphoma Study Association (Coordinator of reviewers for mantle cell lymphoma protocols).

Member of the European Association of Haematopathology (EAHP) since 1996.

Catherine THIEBLEMONT

Saint-Louis Hospital, Paris-France



Catherine Thieblemont is Professor of Haematology in the Paris VII-University, France – and the head of the Hemato-Oncology Department in the Hospital Saint-Louis – Paris, France since December 2009.

She trained as a Hemato-oncologist in Lyon from 1990 until 1995. She stayed 2 years in the department of Hemato-Pathology (Doctor Elaine Jaffe) in the National Cancer Institute - Bethesda (MD), USA. She became a fellow in the Department of Hematology of Centre Hospitalier Lyon-Sud directed by Professor Bertrand Coiffier in 1998 and became Assistant-Professor in the same department in 2003. She moved in Paris

in 2007 and became the head of the Hemato-Oncology Department, focalised in the management of patients with lymphoma, in the Hospital Saint-Louis – Paris, France in 2009.

She is an active member of the Lymphoma Study Association (LYSA) – the former Groupe d’Etude des Lymphomes de l’Adulte (GELA), a cooperative group of French, Belgian and Switz phycisians interested in the treatment of lymphomas. Within the LYSA, she is one of the members of the scientific committee and she is coordinating the subcommittee of the marginal zone lymphoma. She is an active member of the International Extranodal Lymphoma Study Group (IELSG) and participates as of one the members of the board directors. She participates to the coordination of several randomized trials for the treatment of lymphoma patients.

Her major interest is the biological and clinical features of lymphomas. She is biologically involved in programs developing genomic studies on low and high grade lymphomas, particularly marginal zone lymphomas, but also refractory high grade lymphomas, using integrative genomics to determine biological key targets for new therapies.

Olivier HERMINE

Necker Hospital, Paris-France



After a medical education at Paris Descartes, Olivier Hermine received his MD in 1992, and his PhD in 1995, and is Professor of Hematology since 1999, director of the department of Adult Hematology since 2009, coordinator and founder of the reference centre for mastocytosis (CEREMAST) since 2007, director of the CNRS UMR/INSERM laboratory of physiopathology and treatment of haematological disorders since 2013, and is member of the executive committee of the Imagine Institute at Necker Hospital since 2011. He is co founder and coordinator of the Laboratory of excellence on red cells (GRex). He co-founded and director

of the scientific committee of the biotechnologies AB science specialized in tyrosine kinases development and Inatherys specialized in the development of antibodies against IgA receptors including transferin receptor. He is author and co-author of 15 patents and of 435 publications in peer-reviewed journal including Nature, Nature Medicine, Nature Immunology, Journal of Experimental Medicine, New England Journal of Medicine, Lancet Oncology, Journal of Clinical Oncology, and Blood. He is an active member of the International retrovirology association, the Lysa, the EMCL and EBMT and he is particularly involved in studies of Mantle cell lymphoma and virus related lymphoma particularly HTLV-1 and HCV.

He was awarded the Olga Sain prize from Ligue contre le cancer-comité de Paris, the Jean Bernard prize from French medical research foundation in 2008, the prix of the FRM in 2011 and the Grand prix de la Fondation de France in 2012.

François DAVODEAU

INSERM, CRCNA, Nantes-France



François Davodeau is biologist researcher at INSERM since 1996 in Nantes. His initial formation in immunology led him first to focus on the rearrangement mechanisms of T-cell antigen receptor (TCR) gene and on allelic exclusion mechanisms. Then, François Davodeau studied unconventional T-cell populations' $\gamma\delta$ T cells and NKT type before addressing more specifically the anti-tumor immunity populations mediated by $\alpha\beta$ T-cells.

Since 2003, François Davodeau dedicates all of his activity in the fight against cancer by developing a preclinical research in nuclear medicine for diagnostic and therapy. His research in Nuclear imaging focuses on immuno-PET and immuno-SPECT phenotype imaging. On a therapeutic side, his research aims to develop radioimmunotherapy using radiolabeled antibodies with emitters of alpha and beta particles. He continues a parallel line of research exploring the modalities of activation of anti-tumor immune responses in conjunction with radioimmunotherapy on models of multiple myeloma and breast and colon carcinoma.

Since 2008, François Davodeau pursues nuclear medicine research on models of pets with spontaneous cancer in collaboration with AMaROC (ONIRIS) team. The relevance of these models compared to rodent models should be an opportunity to develop new imaging methods quickly transferable to human clinical therapy. Genetic and histopathological proximity of spontaneous canine and feline tumors allows considering a selection in these animals of the most effective treatment for transferring to clinical trials in humans.

Jean-Yves BLAY

Léon Bérard anticancer center, Lyon-France

Jean-Yves Blay conducts translational research in national and international networks, in the field of



rare tumours in particular sarcomas, cancer immunology, and development of innovative targeted therapies of cancer

Jean-Yves Blay obtained his medical degree from the Claude Bernard University in 1990, specializing in oncology, and in 1994, received his PhD on the role of interleukin-6 in renal cell carcinomas.

Jean-Yves Blay is an active member of the European Society of Medical Oncology (serving as National Representative), the Connective Tissue Oncology Society (Board member 2001–2004 American Society of Clinical Oncology, the American Association for Cancer Research, the American Society of Hematology), the French

Society of Cancer (Board member 2005–2011), the European Association of Cancer Research. He co-chairs the French Sarcoma Group and acts as the Network director of the French national network dedicated to sarcoma since 2009 Netsarc (netsarc.org). He is also the Network Director of Conticanet, a network of excellence funded by the EU, Commission and dedicated to novel treatment approaches in sarcomas (www.conticanet.eu, conticabase.org, conticagist.org). He leads the current FP7 Eurosarc project, and serves as the director of the French NCI (INCa) supported Lyon Integrated research site in Cancer (LYRIC), one of the 8 integrated sites created so far in France. Jean-Yves Blay served as President of the European Organisation for Research and Treatment of Cancer (EORTC).

Benoit HEDAN

CNRS Unit, School of Medecine, Rennes University-France



1998-2003: Veterinary school and Diploma of Veterinary Medicine (DVM) – veterinary school of Nantes (FRANCE).

2003-2007: PhD of genetics – Research of genes involved in canine genetic diseases, as models for human diseases: malignant histiocytosis of the Bernese Mountain dog and the Merle coat color – Supervisor : Dr C. ANDRE, “Canine Genetics” team CNRS Unit, School of Medecine, Rennes University, France

2008-2009: Post doctorate – Research of chromosomal aberrations involved in canine histiocytic sarcoma by comparative genomic hybridization , model for human histiocytic sarcoma – Superviseur: Dr M. BREEN, Pr of Genomics, dept. of Molecular Biomedical Sciences, CVM, North State Carolina University, NC (USA).

2009-2012: Post doctorate – Research of genes involved in canine histiocytic sarcoma, a hereditary cancer – “Canine Genetics” team CNRS Unit, School of Medecine, Rennes University, France

2012-present : Permanent Research engineer in “Canine Genetics” team CNRS Unit, School of Medecine, Rennes University, France .

Dr. Hedan’s research interest is in canine genetics to use this naturally occurring diseases model to unravel the genetic bases of homologous human genetic diseases such as monogenic diseases or polyfactoriel diseases such as cancers. The team has developed numerous genetic tools (markers, sequences, comparative maps ...) to be able to perform genetic analyses. In the same time, a Bio-Bank of canine samples was developed for biomedical studies, to be used for the benefit of dogs and humans. Benoit Hedan has long worked on histiocytic sarcoma in several at risk breeds, to determine the predisposing genes and tumor progression genetic alterations. This work allowed the recent development of a genetic risk test in the Bernese Mountain dog breed. More recently, these genetics studies were enlarged to other canine cancers homologous to human tumors such as melanomas, lymphomas, gliomas... The ultimate goal of these research projects is to translate results obtained in dogs to patients to better understand the physiopathology of the diseases and to ultimately develop effective therapies for a mutual benefit for dogs and humans.

Eve MAUBEC

Bichat University Hospital, Paris-France

Eve Maubec, MD, PhD serves as the Head of the Skin Cancer Unit in the Department of Dermatology of the Bichat University Hospital in Paris, France. She has a long term experience in clinical research mainly focused on melanoma. She has also largely contributed to clinical trials and to basic research in skin cancers. She is currently pursuing research in genetic epidemiology in the internationally renowned “Genetic Variation of Human Diseases” laboratory directed by Dr. F. Demenais. She is the co-author of more than 50 publications with a number of them in leading journals. She is a member of French and International scientific societies such as ASCO, AAD, and the GenoMEL consortium.



Caroline LEROUX

INRA University Lyon 1, Lyon-France

Dr Caroline Leroux, DR2 (Director of Research, tenure position) INRA, PhD in Virology, University Lyon 1 1995.



Present: Group leader "retrovirus, evolution and cancer" team, joined research unit "retrovirus and comparative pathology" UMR754 INRA University Lyon 1, Lyon, France. tenure position UMR754 INRA Lyon

1999-2002: senior research associate (post doc), UMR754 INRA, Lyon
1995-1999: senior research associate, University of Pittsburgh, dpt of molecular genetics and biochemistry (Pr RC Montelaro)

I developed my expertise on animal retroviruses and the associated mechanisms leading to disease development and progression. In this context, I work on several retroviruses in large farm animals such as SRLV (Small ruminant lentiviruses) in sheep and goats, EIAV (Equine

infectious anemia virus) in equids and JSRV (Jaagsiekte sheep retrovirus) in sheep.

EIAV in equids

I described the evolution of the virus during the different phases of the diseases and demonstrated that each clinical episode was associated with the emergence of new viral complex populations. I am involved in studies on the genetic and biological diversity of EIAV isolates circulating throughout Europe and at the origin of recent epidemic events.

We recently described a new pathological entities in the lung of naturally infected horses (in press) resembling the one observed in infants infected by HIV. We are pursuing with studies on the EIAV tropism in vivo and ex vivo for primary pulmonary epithelial cells.

JSRV-induced cancer in sheep as a model of lepidic pulmonary adenocarcinoma in human.

Our project aims to decipher the molecular and cellular mechanisms leading to the transformation of the alveolar and bronchiolar epithelial cells. We focus on the in vivo events, using post mortem tissues as well as cancer-derived primary cells. JSRV induced in sheep a pulmonary adenocarcinoma closely related to lepidic adenocarcinomas in human lungs, formerly known as bronchioloalveolar cancers. We are interested by the mechanisms in these 2 diseases, using the cancer naturally induced in sheep as a study model for the events occurring in humans.

More recently and based on our expertise on primary lung cells, we are developing projects to study the deregulation of cell proliferation in rare pulmonary diseases.

Georges VASSAUX

TIRO laboratory, CEA-University of Nice-France

Georges Vassaux is based in the "TIRO laboratory (CEA-University of Nice) since January 2012. After a PhD in pharmacology at the University of Nice (France) in 1992, and two post-doctoral Fellowships at Imperial College School of Medicine in London (UK), he was appointed as a Senior Lecturer at Imperial College London in 2000. He joined Inserm as a "Directeur de Recherche" in 2007. He is currently working on the development of new tools for gene therapy, in particular in the field of vector development for cancer gene therapy and molecular imaging.

Fany BLANC

INRA/CEA Animal Genetics and Integrative Biology Unit, Jouy en Josas-France



Fany BLANC received her PhD in biology in 2008 from AgroParisTech (Paris). Her thesis work (INRA Immuno-Allergy Unit) involved developing a humanized mast cell mediator release assay to analyze milk and peanut allergens. She also participated in the EUROPREVALL project aiming at understanding the influence of food preparation methods on their potential allergenicity. She then worked at Pasteur Institute in Paris (Innate Defense and Inflammation Unit) as a post-doctoral fellow (2009 to 2012), where she studied the role of innate defense actors (TLR7, LGP2, calpains) in the influenza A virus pathogenesis. Since 2013 she has joined Silvia Vincent-Naulleau's team (INRA/CEA Animal Genetics and Integrative Biology Unit, Jouy en Josas) as a postdoctoral fellow to investigate the immune response involved in the spontaneous cutaneous melanoma regression in *MeLiM pig* model.

Robin FAHRAEUS

INSERM U 940, Molecular Genetic Institute, St Louis Hospital, Paris-France



Robin Fahraeus did his MD/PhD at the Karolinska Institute in Stockholm Sweden. He is working in “Cibles Thérapeutiques” team in Paris where he is directing a small but lovely team on the physiological implications of mRNA translation in the p53 tumour suppressor pathway and on MHC class I antigen presentation. The team has an interest in translational research and has actively been promoting the use of spontaneous tumours in dogs as a model system for the development of novel cancer therapeutics. In particular, the team is working with Prof Ted Hupp in Edinburgh on the development of caninized antibodies for cancer

treatments and diagnostics.

Frédérique NOWAK

National Cancer Institute-France



After a master in bioengineering from the Ecole Centrale of Paris, France (1992), Frédérique Nowak started her career at the Institut Gustave Roussy in Villejuif, France, where she got a PhD in Molecular Pharmacology in 1996. After her PhD, she joined Genset, a biotechnology company, where she has been project manager for innovative projects in high-throughput molecular cytogenetics. Between 2002 and 2006, she was responsible for a R&D team at the Serono Genetics Institute of the Serono pharmaceutical company in Evry, France. Frédérique Nowak is currently Head of the Biology, Technology Transfer and Innovations Department at the Institut National du Cancer (French National Cancer Institute, INCa) that she joined in 2006.

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Institut national du cancer

Prévention, dépistage, soins, recherche

Accélérons les progrès face aux cancers

www.e-cancer.fr

L'Institut national du cancer (INCa) est l'agence sanitaire et scientifique de l'État chargée de coordonner les actions de lutte contre le cancer. Créé par la loi de santé publique du 9 août 2004, il est placé sous la tutelle conjointe du Ministère des Affaires sociales et de la Santé et du Ministère de l'Enseignement Supérieur et de la Recherche.

Constitué sous la forme d'un groupement d'intérêt public (GIP), l'INCa rassemble les acteurs clés de la cancérologie : l'État, les grandes associations du champ de la cancérologie, les caisses d'assurance maladie, les organismes de recherche et les fédérations hospitalières. Tous ont pour ambition commune de diminuer la survenue des cancers évitables, de réduire la mortalité par cancer, d'améliorer la qualité de vie des personnes atteintes pendant et après la maladie et de réduire les inégalités de santé.

L'INCa apporte une vision intégrée de l'ensemble des dimensions (sanitaire, scientifique, sociale, économique) et des champs d'intervention (prévention, dépistage, soins, recherche) liés aux pathologies cancéreuses. Il a pour ambition de jouer un rôle **d'accélérateur de progrès** au service des personnes malades, de leurs proches, des usagers du système sanitaire et social, des professionnels de santé, des chercheurs, des experts et des décideurs.

Concrètement, l'INCa

- coordonne les actions de lutte contre le cancer ;
- initie et soutient l'innovation scientifique, médicale, technologique et organisationnelle ;
- agit sur l'organisation des dépistages, des soins et de la recherche ;
- produit des expertises sous forme de recommandations nationales, de référentiels, de rapports et d'avis ;
- produit, analyse et évalue des données dans tous les domaines de la cancérologie ;
- favorise l'appropriation des connaissances et des bonnes pratiques par les différents publics.

L'INCa dispose d'un budget annuel d'environ 100 millions d'euros. La moitié de ce budget est allouée au financement de la recherche et l'autre moitié est dédiée, notamment, aux actions de soins, à la santé publique et à l'information des publics.

L'INCa regroupe 150 salariés et mobilise chaque année plusieurs centaines d'experts externes pour concourir à ses travaux.

Institut national du cancer

*Prevention – Screening – Care – Research
Let's spur progress against cancer*

www.e-cancer.fr

France National Cancer Institute (INCa) is the preeminent health and science agency in charge of cancer control. Created under the Public Health Act of 9 August 2004, it is attached to both Ministries of Health and Research.

INCa is a public interest group (GIP) which brings together State representatives, large NGOs, health insurance funds, research organisations and hospital federations. These stakeholders share a common goal of reducing the incidence of avoidable cancers and the number of cancer deaths, improving the quality of life of people with cancer during and after their illness, and reducing inequalities related to cancer

INCa provides **integrated undertakings in all dimensions** (health, scientific, social and economic) and areas of intervention (prevention, screening, care and research) associated with malignant pathologies. The INCa works at the interface with patients, their friends and families, the healthcare system users, the general public, healthcare professionals, researchers, experts and decision-makers to **catalyse progress**.

Specifically, INCa:

- Coordinates cancer control activities,
- Initiates and supports scientific, medical, technological and organisational innovation,
- Is instrumental in the organisation of screening, care and research,
- Produces expertises, recommendations, guidelines, reports and opinions,
- Produces, analyse and evaluates data in all areas of cancer research,
- Promotes knowledge uptake and good practices by different public.

The annual INCa's budget is of approximately €100 million. About half of this budget is allocated to research funding. The other half is allocated to healthcare initiatives, public health and public information.

INCa has 150 employees and each year, over hundreds of external experts contribute to its works.

