

BIONOTES FOR THE 12 NATF MEMBERS ELECTED IN 2016

The NATF, during its December 7, 2016 Plenary session, elected twelve new Fellow members bringing academic membership to 312.

Members elected to the NATF are chosen among *“high level personalities capable of providing not only the best skills in various technology-intensive fields, but also in regard to the wide scope of processes related to technologies, technological research and applications, from financial support to dissemination, including economic, social and cultural aspects”*.¹

> ANDRÉ AURENGO

Doctor, honorary University Professor and hospital practitioner, chairman of the Medical Council of EDF, former Chair of the ‘radioprotection’ section of the *Conseil supérieur d’hygiène publique de France*, member of the National Academy of Medicine (ANM), Professor Aurengo directed the nuclear medicine service of the Pitié-Salpêtrière Hospital Group from 1989 to 2014. His research focused on treatment of bio-images, thyroid cancer and methodologies appropriate to epidemiology.

For the past 15 years, he has chaired the Medical Council of EDF (national electric facility, where he was State representative from 1989 to 2000 – he also created and chairs today the EDF Ethics Committee. He was appointed successively VP then President of the of the Radioprotection Section of the French High Council for Public Hygiene, where he participated actively in transposing the main European directives in this specialty area into French law. He chaired the *Société française de radioprotection* from 2005 to 2007. Likewise, Prof Aurengo has been advisor to the High Commissioner of the CEA since 2012 for the thematic: radiobiology and radioprotection; he was elected full Fellow of the National Academy of Medicine (ANM) in 2005.

> FRANÇOIS BOURDONCLE

Chairman and Founder CEO in 2014 of FB & Cie. (a consultancy agency in the field of digital strategies). François Bourdoncle was also co-founder, Chairman and CEO of *Exalead*, one of the most advanced search engines in the world today, which addresses the specific needs of enterprises. Founded in 2000, the company was bought out by the Group Dassault Systèmes in 2010. François Bourdoncle combines the talents of a scientist, an entrepreneur and is a top notch specialist of the Internet. These skills led him to being invited to sit on numerous committees and working parties, such as the “Innovation 2030” advisory committee, or the “Big Data Plan-France”.

François Bourdoncle holds the rank and distinction of Chevalier in both the Légion d’Honneur and in the National Order of Merit. In 2005 he was awarded the “*Engineer of the Year*” trophy, in the category ‘entrepreneur’ as well as the Louis Armand Prize for 1984.

¹ Art. 1 - NATF byelaws.

> EMMANUELLE CHARPENTIER

Director of the Max-Planck Institute for Infectiology, Berlin and scientific Member of the *Société Max-Planck*, honorary professor at the University Humboldt, Berlin, Alexander von Humboldt professor in Germany, and adjunct guest professor at the University of Umeå, Sweden. In April 2014, she founded (with Dr Rodger Novak and Shaun Foy), CRISPR Therapeutics, to develop genetic editing for therapeutic purposes (using the technique CRISPR-Cas9).

Her career as an independent research scientist began in 2002, when she was offered a contract as a research group manager, first as an adjunct guest professor then as assistant professor associated with the University of Vienna, Austria. In 2009, she was appointed adjunct professor at the University of Umeå, Sweden where she was invited to head a new research team. In 2013, she was appointed Professor at the Medical School, Hanover, Germany and at the Helmholtz Centre for Research on Infectious Diseases in Brunswick, Germany. In 2014 she was appointed full professor to the Alexander von Humboldt Chair.

Professor Charpentier has been awarded close on 50 distinctions and awards (prizes, elections to academies and learned societies, doctor honoris causa degrees ...).

> GÉRARD CREUZET

As an *agrégé*, with a PhD in Physics, Gérard Creuzet began his professional career in 1976 in basic 'blue sky' research, first with Prof Albert Fert's team at the solid state physics laboratory of the University of Paris Sud 10 (Orsay), and then as Director for the Thomson-CSF (later Thales) Material Physics central laboratory.

In 1990, he moved to join the research and technology directorate of the Thales Group, acting in particular as Secretary General of the scientific and technical personnel. He evolved to assuming the managerial post as Director of Technology of *Thomson Tubes Electronics*, after which he became R&D Director at *Valeo* before taking on the responsibility of their "motors and actuators" division. He moved to EDF (national electricity facility) in 2001 as their Director for Strategy and Development, and then moved up to Director General for Operations in 2003 at a time when the corporate stocks and major contracts markets became open.

Gérard Creuzet has been an independent consultant since 2005. From 2006 to 2008 he was Senior Advisor with Alix Partners, specialists in corporate receivership operations. As of 2012, he was approached by the *Ecoles Centrales* Group and, since 2015, he is now their Delegate General.

> BARBARA DALIBARD

Since July 1 2016, as Chief Executive Officer (CEO) of SITA – an international organization specialized in communications and computer science services focusing on the aeronautical sector, Barbara Dalibard has held numerous high responsibility positions with several major high technology-intensive companies: she was successively Director for Major Accounts, then Client Service Director with France Telecom; she was General Manager for Alcanet International, a subsidiary of Alcatel before being appointed VP-France for the Group Alcatel-CIT, was Director for Corporate Contracts (mobiles) then sat on the Orange Group's Executive Committee, responsible for corporate markets and contracts; she was Director General at *SNCF Voyageurs* where she developed the e-ticket concept and new apps for rail travellers as well as equipping all on-board train staff with smartphones. She launched OUIGO, the first low-cost high speed train.

Barbara Dalibard has been a member of the Michelin Group Innovation Committee, ever since it was created and has been scientific advisor for the SNCF railway operator for the past three years.

> **DIDIER EVRARD**

Director General Airbus Commercial Aircraft Programmes as of Jan 1, 2015, member of the Airbus Executive Committee, Didier Evrard was Director (2007-2014) for the A30 XWB Programme, a wide-body, long range medium capacity aircraft. In May 2015, Didier Evrard was awarded the Icarus Prize for the most excellent way he managed this ambitious project which today still has some 12 000 Airbus staff working on it.

He began his career with Matra as a systems engineer and over the next 20 years he was given responsibility in several project management positions in the framework of aeronautical cooperation programmes with the Americans, the Italians, the British and the French. In 1998, he became Director of the Matra Bae Dynamics (MBD) Standoff Programme, with worldwide responsibility for the multinational programme Storm Shadow/SCALP (stealth cruise missiles, undetectable even by the AWAC S3 airborne radars). Didier Evrard was Chairman and CEO for MBDA France before assuming responsibility for the complete range of programmes of the MBDA Group, the European leader for missile design and missile systems.

> **ALICE GAST**

Alice Gast has been President, since September 2014, of the prestigious Imperial College, University of London (UK), and barely two years after her arrival is now having to face up to the consequences of 'Brexit', managing a new design school as well as the development of a brand new London campus devoted to innovation. As an American academic, Prof. Gast was previously Professor of Chemical Engineering at the University of Stanford (California) from 1985-2001, VP-Research at MIT (Cambridge, Mass.) and 13th President at Lehigh University (Penn.) from 2006 to 2014. Professor Gast sits on numerous advisory committees and councils round the world, such as the Academic Board at the King Abdullah University of Science and Technology (KAUST), Thuwal, Saudi Arabia, the university research council for the Ministry of Education, Singapore and the World Advisory Council on Science and Innovation for the Prime Minister's Office, Malaysia. She was appointed US special scientific envoy for the Caucasian countries and Central Asian region in 2010.

She is a Member of the National Academy of Engineering (NAE-US) and of the America Academy of Arts and Sciences. Prof. Gast is likewise Doctor *honoris causa* (2016) of the University of Paris 6 (Pierre & Marie Curie).

> **FRANÇOIS HOULLIER**

In his capacity, as of September 2016, as Administrator for the University Sorbonne Paris Cité, François Houllier is a specialist of plant and ecological system modelling and for forestry biometrics.

He was appointed President – Director General for INRA in 2012 (up to 2016), after holding successively the following positions – Director General Delegate (2010-2012à), Chief Scientific Officer for “*plants and vegetable products*” (2005-2009), Head of the INRA Departments: “*Forest and natural milieus*”, “*Forest, meadowland and aquatic milieus*” (2001-2004). Before that, he was in charge of the joint (Cirad, CNRS, INRA, IRD and the University of Montpellier-II) research unit “*Botany and bio computer analysis for plant architectures*” (1998-2002) and at the French Institute of Pondicherry (India, 1994 to 1997). François

Houllier began his career as head of the 'forestry resource assessment project (national forestry inventory, 1985 to 1988), then as professor at the Engref (*École nationale du génie rural, des eaux et des forêts*) 1988 to 1994.

> VALÉRIE MAZZA

As of 2012, Valérie Mazza has been Chief scientific officer for the Group *Limagrain*, a world leader in seed and agro food business generally; she has successively held the positions of Director for Innovation and Foresight, then Chief Scientific Officer, with the assigned mission to identify new challenges and areas for corporate development. She has also been a member of the French High Council for assessment of Higher Education and Research since 2015.

She began her career with *Thales Optronics* as head of a project for beam-focussing transmission techniques in the Laser Megajoule Programme. She then moved to the entrepreneurship world and Project Manager for *Spinelix* (a biotech start-up) and just before being recruited by *Limagrain*. She was also appointed Regional Delegate for Research and Technology in the Auvergne Region.

> JEAN-LUC MOLINER

Director for Security of the Orange Group since May 2011, Jean-Luc Moliner is in charge of cyber-security measures both national and international, physical facility integrity, no-break services assurance and protection of the infrastructures in 29 countries spread over Europe, Africa and the Middle East.

Jean-Luc Moliner is a graduate from the French military officers' academy at Saint-Cyr, likewise gained diplomas from the engineering school *École nationale supérieure des télécommunications* (ENST) and the French *École de guerre* (War academy). He began his career in the defence sector, notably with various operational units in France and in Germany before being appointed Head of the "Computer Systems Security" department of the Joint Chiefs of Staff (Army) HQ; then Head of the of the technical research at the ministry for Defence. He moved to *Airbus Defence & Security* in 2005 as their marketing director in their *Homeland Security Business Unit*.

Jean-Luc Moliner is a highly reputed and respected expert on security matters and is auditioned in this capacity by the French Parliamentary Office for the Assessment of scientific and technological policy decisions (OPECST).

He is also President of the Security Standing Committee of the French Telecommunications (FFT).

> PASCAL PELLAN

The artisans, the first employment sector in France have a strong advocate in the person of Pascal Pellan, who has presided over the Chamber of Employment of the Côtes d'Armor Department for over 30 years now, making it a vibrant laboratory for ideas and projects. He successively created the Institute for Automobile Technologies, *Vehipole* the *Bâtipole*, and the City of Taste and Savours and finally the City of Employment for the Côtes d'Armor (in a partnership with the CSI-La Villette Paris).

He was the promoter for the 1987 French law reforming apprenticeship schemes thereby validating the principle 'from the CAP to an engineering diploma', the national week for Artisans and a militant pleading the cause of 'A new look at apprenticeships'. Pascal Pellan has authored several books in which he demonstrates the key role played by apprenticeships today in a global economy. Since 2013, with his children, Pascal Pellan is owner and general manager for an SME specialized in shaping stones. As Deputy

Mayor of Pléneuf-Val-André, Pascal Pellan has been appointed as 'Apprenticeship Ambassador' for the Côtes d'Armor.

> **SOPHIE PÈNE** - Vice-President of the national Council for Digital Affairs, member of the Council for Future Generations of Paris, (commission « Vivre ensemble ») since 2016, Sophie Pène, titular professor at University of Paris-Descartes where she directs the Ed.Tech Master'(s degree programme. She began her career in teaching, mainly at the IUT- University of Paris-Descartes where she experimented with *digital learning processes*. Over 2005-2008, Prof Pène was VP-ICTs at University of Paris-Descartes and she directed the research work for ENSCI-*Les Ateliers* from 2009 to 2012. She has been seconded to the Ile-de-France DICEN (digital era interaction and communication devices), where she oversees work in the overlapping fields of design and digital techniques. She is a member on the Steering Council for Industry. A former auditor at IHEST (class 'Gérard Mégie' 2007-2008), Prof. Pène is also a member of the IHEST Teaching Council.