European Society of Pathology

NEWSLETTER

EUROPEAN SOCIETY OF PATHOLOGY NEWSLETTER

Spring Edition 2018

TAKE A LOOK INSIDE

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European Society of Pathology

NEWSLETTER

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MESSAGE FROM THE PRESIDENT OF THE ESP

By Dr. Dina Tiniakos

Dear colleagues and friends,

ESP has been very active since my last message to you in Autumn 2017 and I am indeed grateful to the ESP officers, energetic ESP members and our management staff for their strong commitment and continued support.

The preparations for the 30th Anniversary of the European Congress of Pathology (ECP) that will take place between 8 and 12 September in Bilbao, Spain are progressing smoothly. The registration for the largest and most prestigious pathology congress in Europe is open and the preliminary scientific programme is available at the congress website (https://www.esp-congress.org/). Let me remind you that the abstract submission deadline is 11 April 2018 and we are expecting your scientific contribution. ESP aims to showcase every year at ECP the best original research in pathology together with interesting case presentations from more than 100 countries. ESP will offer bursaries to young pathologists whose abstracts will be accepted for presentation at the congress, so please spread the word.

The 29th ECP Amsterdam 2017 was one of the most successful ECP to date and having received your constructive feedback we aim to make the 30th ECP Bilbao 2018 an even better scientific, networking and social event for all delegates! The Congress motto "Pathology: Path to Precision Medicine" refers to the central role of the pathologist in the multidisciplinary teams that guide patient management in the 21st century and is strongly reflected in the scientific programme that the ESP Working Groups, with the collaboration of the Spanish Society of Pathology and many other societies and organisations have prepared for you. We will be celebrating the 30th Anniversary of ECP in Bilbao, so be prepared for a special congress with many surprises.

The 31st ECP Nice 2019, 7-11 September 2019 has already started taking shape. It will be held at the Acropolis Congress Centre at the heart of beautiful Nice at the Cote D'Azur. I visited the site together with the local organising committee member and the ESP Director-General at the end of January and we were all impressed with the congress venue and its central location. We are all expecting a very NICE congress in 2019 and you will take a first glimpse of it through the promotional material that you will receive in Bilbao.

Nice to be in Nice for ECP NICE 2019! Preparations for the 31st European Congress of Pathology Nice Acropolis, France 7-11 September 2019 have already started. Scientific Committee members of ECP Nice 2019 (clockwise) Raed Al Dieri (ESP Director-General), Dina Tiniakos (ESP President), Jean-Francois Fléjou (Chair, ESP Digestive Diseases Working Group), Jean Christophe Sabourin (President, French Society of Pathology) and Pierre Bedossa (ESP Past-President) together with Juliane Heinicke (Senior Project Manager, CPO HANSER SERVICE GmbH) in Nice on 26/1/2018.

The seeds for the second jointly organised congress by the ESP and the International Academy of Pathology (IAP) were planted in Amsterdam last autumn with a memorandum of understanding between ESP and the British Division of IAP (BD-IAP). The XXXIII International Congress of the IAP and 32nd Congress of ESP congress will take place in Glasgow, 29 August - 3 September 2020. Now, in springtime, the first sprouts are in view: the congress venue chosen is excellent, the city of Glasgow is providing great support and we are currently preparing the first announcement together with the leadership of BD-IAP.

We have also been working on the new ESP scientific venture, the ESP Academy (ESPA) that will take place in Waterloo, Belgium, 23-26 June bringing together the best junior pathologist-researchers from the ESP-affiliated National Pathology Societies and renowned faculty for a 4-day interactive workshop. ESPA is designed to support early career pathologists involved in

research by promoting training, encouraging collaborations and by providing a forum to share experiences with senior world leading researchers. The deadline for submission to take part was 16 Feb 2018 and 29 applications have reached the ESP Headquarters. These will be reviewed by the ESPA Scientific Committee and the results are expected in mid-May 2018.

In addition to the activity towards ESPA, ESP continues to be strongly committed to supporting postgraduate education in pathology. For 2018, the European School of Pathology (EScoP) in Varna, Bulgaria will include an "Update in Urinary System and Male Genital Tract Pathology". The event will take place on 17-18 May with renowned ESP faculty and further details may be found on the website. Applications for the 2019 edition of the Giordano Fellowship (GF) are open and young pathologists are welcome to apply for 1- to 3-month specialist training at an ESP Advanced Training (EAT) Centre. Currently there are 22 EAT centres across Europe, including our newest addition on "Molecular pathology with an emphasis on liquid biopsy", in Nice, France. For 2018, 8 applicants were awarded the Giordano Fellowship and more posts for in-depth training experience in pathology will be open for 2019, so please check the dedicated area at the ESP website. The joint ESP-EORTC fellowship will be renewed for 2019 so keep an eye for the call for application in the next few months. This one-year fellowship is for a young pathologist interested in cancer clinical research who will play an active role in clinical trials in need for pathology input at the European Organisation for Research and Treatment of Cancer facility based in Brussels.

Collaboration with other clinical and research-oriented scientific organizations is ongoing. I will only name a few of our joint activities: we have extended our collaboration with EORTC with a new memorandum of understanding (MoU); we will soon sign a MoU with UEMS-Section of Pathology while an ESP taskforce has been working hard for the revival of the progress test in pathology (see the article by Fred Bosman in this issue of the ESP Newsletter); ESP has been invited to participate at the strategy meetings and scientific events of United European Gastroenterology (UEG) and European CanCer Organisation (ECCO); we are co-authoring a position paper on the future of continuous medical education (CME) together with Biomedical Research Alliance and with its other member societies; we will have a new MoU with AORTIC (African Organisation for Research and Training in Cancer) and APOF (Pathologists Beyond Borders Association).

Several meetings took place at the ESP Headquarters at the end of February 2018. The ESP Advisory Board, the Working Group Chairs, and the ESP Council all met during two consecutive days in Brussels and had productive discussions. I was very pleased to welcome at our Council meeting the new Chair of the ESP Trainees Subcommittee (TS), Dr Charlotte Kweldam from the Netherlands, who together with her co-chair Dr Daniel Pinto from Portugal have been very active preparing a new trainee survey complimentary, designing two scientific sessions for the 30th ECP Bilbao and creating the new ESP Trainees Facebook page.

Finally, I am happy to let you know that the new interactive ESP Membership database (EMD) will soon become live online. The new EMD will allow ESP members to edit their profiles, pay their membership fee easily, check their membership history, and also to access the ESP educational portal through one single sign-in. The new EMD will comply with the new EU General Data Protection Regulation (GDPR) that will be effective from 25th May 2018.

ESP officers and members have been in the core of all the activities you read about above and we would like to see more of you to be involved. Please do not hesitate to contact me if you have any questions or feedback at dtiniak@med.uoa.gr and dina.tiniakos@newcastle.ac.uk Your ideas and suggestions are welcome!

Enjoy reading the ESP Newsletter!

EDITOR'S MESSAGE

By Prof. Gordan Vujanić

Spring 2018 issue of the Newsletter is in front of you. It starts with President's extensive update about Society's activities, from the coming 30th ECP in Bilbao, but also about preparations for 2019 and 2020 congresses. Also, the new ESP Academy has received applications and the results will be announced soon. The European Schools of Pathology

are being organized and are making a significant contribution to education of pathologists in laboration with various organisations such as the European Organisation fro Research and Treatment of Cancer, the UEMS, the United European Gastroenterology (UEG) and European CanCer Organisation (ECCO), Africal Organisation for Research and Training, and Pathologists Beyond Borders Association.

Prof. Jose I. Lopez, Chair of the LOC of the ECP 2018 is giving us further details about the Congress which is promising to be a very memorable and enjoyable one, so we hope that we will have as many participants as at the last few congresses.

Prof. Daniela Massi, Editor-in-Chief of the Virchows Archiv is reporting on more good news about our journal, and introducing her team of Associate Editors.

There is a very nice report from the Czech Society of Pathology, written by Prof. Eva Honsova nd Prof. Pavel Dundr, including a short history of development of pathology in the Czech Republic, and its current status.

Dr Beatrix Cochand-Priollet and Dr Phillipe Vielh are reporting on behaldf of the ESP Cytopathology Working Group and are proposing that it should have a more prominent place in our Congresses.

The ESP Trainee Subcommittee has new leaders, Dr Charlotte Kweldam and Dr Daniel G. Pinto, who are planning in continuing and expanding a great work their predecessors have done.

Prof. Sanja Milenkovic is reporting on the ESP Task Force for Pathology and Public past and planned activities in promoting pathology.

Prof. Iris Nagtegaal, on behalf of the ESP Task Force for Synoptic Reporting, is informing us about their work on introduction of the synoptic reporting.

A long standing and important educational activity – Ionnina University Courses in Pathology, which have been going on since 1996 are being reported by Prof. Anna Batistatou.

Prof. Els Dequeker is presenting the ESP Quality Assessment scheme and explains why it is important to participate in it.

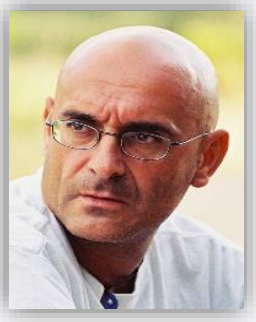
Dr Loukas Kaklamanis has picked up a number of interesting, recently published papers in his column 'Analecta Medica."

Prof. Metka Volavšek, is drawing out attention to a number of recently published books, as well as Forthcoming pathology meetings around the world.

A lot to read, but we hope you'll find time for it, and enjoy the Newsletter.

Preparing for Bilbao

By Prof. José I. López
Chair of the Local Organizing Committee of the ECP 2018



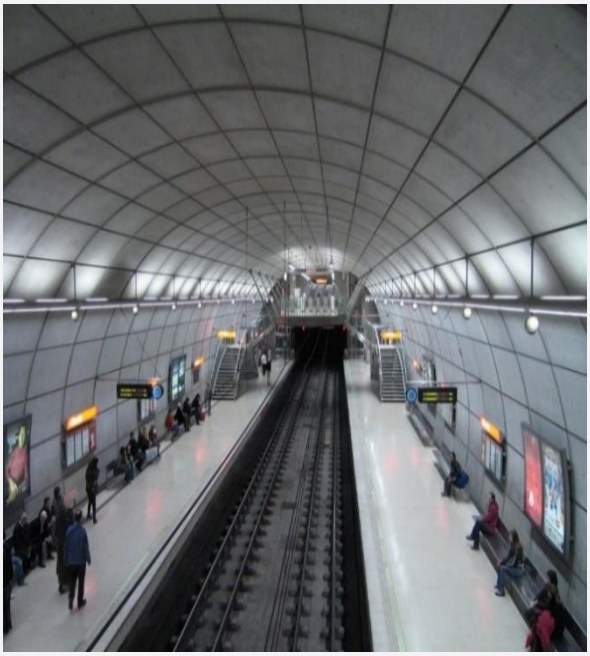
The motto of the ESP congress in Bilbao 2018 is "Pathology: path to precision medicine". That should make you want to book your tickets now. Venue will be the Euskalduna Convention Centre, in the very heart of Bilbao. From the airport you have to go to the right in the Arrivals area where a bus will take you to Bilbao. There arethree bus stops in the heart of the city, being the last one the closest to the congress venue (roughly 300 m).

If you need more arguments into your decision to come to Bilbao for your next ESP congress (September 8-12, 2018), here are some additional motives. Four excellent keynote speakers agreed to come to Bilbao in order to update you on scientific progress on cellular senescence, complications of obesity, genomics and epigenomics of gastrointestinal cancer, and the value(s) of pathology on genes, memes and quality. Of course, all the working groups have submitted their programmes and brought some interesting alliances as well.

In addition, CPO Hanser calmly negotiates behind the screens for the benefit of the congress. I can advance some social highlights: The Choral Society of Bilbao will sing in the opening ceremony at the Auditorium, the Bilbao Symphonic Orchestra will play Spanish music in a concert scheduled in a beautiful theater, and the farewell party will be held on the 24th floor of the Iberdrola Tower with a 360º beautiful view of Bilbao in the night.

Additional motives for coming to Bilbao are museums and gastronomy. Although Guggenheim Bilbao Museum is famous and unique, Fine Arts Museum of Bilbao (500m from the venue) contains an impressive permanent collection of Spanish and international masterpieces.

The Basque Country is worldwide known by its extraordinary gastronomy and Bilbao is not an exception. There are several Michelin-star restaurants in the city and innumerable good restaurants where you can delight Basque cuisine. “Pintxos”, the Basque tapas, deserve a special mention as an alternative way to have collective lunch or dinner, especially in the labyrinth of streets that constitutes the Old Town (1000 m from the venue).

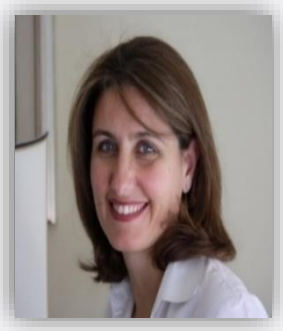


Metro and Tram connect the Venue with most parts of the city (transport tickets will be provided for free), although almost any point in the city can be reached just by walking. Most hotels in Bilbao are at a walking distance of the Venue.

It is time to make the decision! We are ready and looking forward to welcome you!

REPORT FROM VIRCHOWS ARCHIV EDITOR-IN-CHIEF

By Prof. Daniela Massi



Dear ESP members, dear friends,

I would like to thank everyone who contributed to *Virchows Archiv* during 2017 – whether you helped to review a submission, submitted your latest research to the journal, or recommended the journal amongst your peers. Below I highlight just some of the highlights and key metrics achieved during 2017:

- 25 days: is now the average length of time between submission and first decision
- >280,000: the number of article downloads received by the journal last year
- The following three articles received the highest number of downloads during 2017 across all the items published in the journal:

Basso C. et al. **Guidelines for autopsy investigation of sudden cardiac death: 2017 update from the Association for European Cardiovascular Pathology.**
Article DOI 10.1007/s00428-017-2221-0; URL https://link.springer.com/article/10.1007/s00428-017-2221-0; 2017 downloads: 4,306

Speight P. M. et al. **New tumour entities in the 4th edition of the World Health Organization Classification of Head and Neck tumours: odontogenic and maxillofacial bone tumours.**
Article DOI 10.1007/S00428-017-2182-3; URL: https://link.springer.com/article/10.1007/s00428-017-2182-3; 2017 downloads: 3,943

Hauptmann S. et al. **Ovarian borderline tumors in the 2014 WHO classification: evolving concepts and diagnostic criteria.**
Article DOI 10.1007/S00428-016-2040-8; URL https://link.springer.com/article/10.1007/s00428-016-2040-8; 2017 downloads: 3,119

Whilst Clarivate's 2017 Impact Factors won't be available until June 2018, data made available by the Web of Science shows the following items from the 2017 Impact Factor window as having received the greatest number of citations during 2017:

Ilie M. et al. **Assessment of the PD-L1 status by immunohistochemistry: challenges and perspectives for therapeutic strategies in lung cancer patients.**
Article DOI 10.1007/s00428-016-1910-4; URL https://link.springer.com/article/10.1007/s00428-016-1910-4; 2017 citations: 42

Müller M. F. et al. **Molecular pathological classification of colorectal cancer.**
Article DOI 10.1007/s00428-016-1956-3; URL https://link.springer.com/article/10.1007/s00428-016-1956-3; 2017 citations: 20

Bubendorf L. et al. **Testing for ROS1 in non-small cell lung cancer: a review with recommendations.**
Article DOI 10.1007/s00428-016-2000-3; URL https://link.springer.com/article/10.1007/s00428-016-2000-3; 2017 citations: 19

The current Editorial Team includes Associate Editors and Editorial Consultants chosen on the basis of their areas of expertise, their breadth of knowledge, whilst maintaining institutional and regional diversity around the globe; this allows *Virchows Archiv* to achieve balance both scientifically and geographically. I wish here to thank them all for their efforts and achievements. Over the coming years, our chief priority will be to maintain the momentum of the ongoing projects of *Virchows Archiv*, and to increase the impact of the journal within our scientific community of worldwide pathologists.

Editor-in-Chief

Daniela Massi, *Florence, Italy*

Daniela Massi, MD, PhD, is Professor of Pathology at the University of Florence Medical School, Italy. She trained in Dermatopathology at the Thomas Jefferson University, Philadelphia, and is Chairman of the EORTC Melanoma Pathology Group and Volume Editor of 'Pathology & Genetics of Skin Tumours' of WHO Classification of Tumours series. Her team studies the regulation and function of different receptor signaling pathways in skin tumour pathology and is focused on the identification of prognostic and predictive factors in melanoma. Prof. Massi became Editor-in-Chief of *Virchows Archiv* in January 2017, having served as Associate Editor for the journal since 2013.

Associate Editors

Irene Esposito, *Düsseldorf, Germany*

Irene Esposito is Full Professor of Pathology and since 2015 Head of the Institute of Pathology at the University Hospital of Duesseldorf, Germany. She obtained her MD in 1997 at the University of Pisa, Italy, where she also completed her training in Pathology. After moving to Germany in 2003, she worked as consultant at the Institute of Pathology of the University of Heidelberg (2003-2007), where she became Assistant Professor of Pathology in 2007. After that, she moved to Munich, where she became Head of the Mouse Pathology Unit at the Helmholtz Zentrum in Neuherberg (2008-2010) performing mouse phenotyping within the German Mouse Clinic. In 2010 she was appointed as Associate Professor of Tumor Pathology at the Institute of Pathology of the Technische Universitaet of Munich and in 2011 she became Vice-Director of the Institute. After a short period as Director of the Institute of Pathology of the Medical University of Innsbruck, Austria, she was appointed at the Heinrich Heine University of Duesseldorf and moved back to Germany, where she now lives with her family and her two daughters. Prof. Esposito is an expert in hepato-pancreatico-biliary, gastrointestinal and neuroendocrine pathology. Her scientific interests focus on pancreatico-biliary carcinogenesis and on experimental, comparative and surgical pathology of pancreatico-biliary neoplasms.

Masashi Fukayama, *Tokyo, Japan*

Masashi Fukayama, MD, PhD, is Professor at the Department of Pathology and Diagnostic Pathology, Graduate School of Medicine, University of Tokyo. He is a genuine pathologist (in anatomical and surgical pathology). His specialty is pathology of the upper gastrointestinal tract, lung and thymus. In 1993, he discovered Epstein-Barr virus (EBV) as a causative agent of pyothorax-associated lymphoma. He then started the investigation of EBV-associated gastric cancer and is currently studying the carcinogenesis and pathobiology of various subgroups of gastric cancer. He also works hard to improve the level of pathology laboratory by integrating the clinical sequencing of cancer. He is the project leader of 'Japan Pathology Artificial Intelligence Diagnostics Project (JP-AID)', which is managed by the Japanese Society of Pathology. He became Associate Editor for Virchows Archiv in January 2018.

Sigurd F. Lax, *Graz, Austria*

Professor Sigurd F. Lax is Head of the Department of Pathology, Hospital Graz South-West, Austria; a position that he has held since 2002. He graduated from the School of Medicine at the University of Graz in 1987, before completing his training at the Institute for Pathology at the University of Graz between 1987 and 1993. He was recipient of the Erwin Schroedinger Fellowship of the Austrian Science Foundation, completing his postdoctoral research fellowship at the Department of Pathology, Johns Hopkins University, Baltimore, USA. Prof. Lax was President of the Austrian Society of Pathology and Austrian IAP division 2013-14, President of the German Division of IAP 2015-17, and a founding member of the GYN Pathology Working Group of the European Society of Pathology in 2000.

His specialties include gynaecological, breast and thyroid pathology with special emphasis on the molecular tumorigenesis of gynaecological neoplasms. He is an editorial board member of the International Journal of Gynecological Pathology, Der Pathologe and Acta medicobiotechnica. He is an editor of the 5th edition of WHO blue book (2018-20) and has been Associate Editor of Virchows Archiv since 2014.

George Netto, *Birmingham, AL, USA*

George J. Netto, M.D. is Professor and Chair of Pathology at The University of Alabama at Birmingham (UAB). Prior to joining UAB, Dr. Netto was a Professor of Pathology, Urology and Oncology at Johns Hopkins University, where he served as the director of Surgical Pathology Molecular Diagnostics.

Dr. Netto is internationally recognized for his expertise as a clinician, scholarly educator and physician-scientist, whose research is focused on urologic and molecular diagnostic pathology.

Dr. Netto is associate editor of the Virchows Archiv, associate editor for translation and basic science for the journal "Urology" and the associate editor for the journals "Urology Case Report" and "Advances in Anatomic and Molecular Pathology". He also serves on the editorial boards of the journals of "Human Pathology" and "Pathology". He has authored or co-authored more than 325 articles and chapters and four books in urologic pathology and is the editor of a widely recognized textbook on genomics in pathology titled "Genomic Applications in Pathology".

Leticia Quintanilla-Martinez, *Tübingen, Germany*

Dr. Quintanilla-Martinez is Professor of Pathology at the University Hospital Tübingen´s Institute for Pathology since 2008. She received her MD and Surgical Pathology training from the National University of Mexico. She did her training in hematopathology at the University of Minnesota and Massachusetts General Hospital, Harvard University, and the molecular pathology fellowship at the National Institutes of Health (NIH) in Bethesda, USA. She has received the Rokitansky prize from the Austrian Society of Pathology, the Fogarty Award from the NIH and a Mantle cell lymphoma (MCL) award from the Lymphoma Research Foundation (LRF).

She has 250 publications in peer-reviewed journals and chapters in several books. She is co-editor of the second edition of "Hematopathology" book and wrote several chapters in the 2016 revision of the WHO classification of lymphomas. She has a Hirsch index of 52 and an i10-index of 135 and total citations of 9366.

Dr. Quintanilla-Martinez is Secretary of the European Association of Haematopathology, and of the haematopathology working group in the European Society of Pathology, EXCO member of the MCL Consortium of the LRF, member of the International Lymphoma Study Group (ILSG), member of the clinical advisory board for the 2016 revised WHO classification in lymphomas. She is Associate Editor of Virchows Archive, and reviewer in several journals.

Ales Ryska, *Hradec Kralove, Czech Republic*

Prof. Aleš Ryška, MD, Ph.D. (*1970, Liberec, Czechoslovakia) graduated at the Charles University in Hradec Králové, where he also obtained his Ph.D. in pathology. He is working at The Fingerland Department of Pathology at the University Hospital in Hradec Králové, Czech Republic as a consultant, full Professor of Pathology and currently also as the Chair of the Department. He is a member of several scientific societies and editorial boards, in 2012 he also served as the Chair Local Organizing Committee of the 24th European Congress of Pathology in Prague. His scientific interests include all aspects of lesions of the breast, thyroid and salivary glands - cytology, histology and special methods, such as immunohistochemistry, molecular pathology, etc. as well as in predictive pathology (detection of markers predicting response to targeted therapy) and quality control in pathology. He is an invited speaker at multiple national and international

meetings and tutor at the European School of Pathology (thyroid gland pathology).

Laura J. Tafe, *Lebanon, NH, USA*

Dr. Laura Tafe is an Associate Professor of Pathology and Laboratory Medicine at Dartmouth-Hitchcock Medical Center and the Geisel School of Medicine at Dartmouth in Lebanon, NH, USA. She is the Assistant Director of the Laboratory for Clinical Genomics and Advanced Technology (CGAT). Dr. Tafe completed fellowship training in oncologic surgical pathology and molecular genetic pathology at Memorial Sloan Kettering Cancer Center. Dr. Tafe's academic interests focus on thoracic and gynecologic neoplasms and molecular diagnostics.

CZECH SOCIETY OF PATHOLOGY

By Prof. Eva Honsová and Prof. Pavel Dundr

A short historical excursion

In order to look at the current state of Czech Pathology I would like to invite you for a short journey through its history. The first public autopsy that took place in Prague was performed by Jan Jesenský, in June 1600. He was one of the rectors of Prague's Charles University founded in 1348, the oldest European university north of the Alps. Central regions of Europe frequently suffered from political disturbances and ideas of politicians and scientists only seldom met. In this case, the Director of the University - Jan Jesenský was beheaded in the centre of Prague as part of reprisals during the re-Catholicisation of our country.

Despite the tragic start, many scientists studied or lived in Prague and made significant scientific discoveries in this stimulating city. We can certainly remember the name of Jan Evangelista Purkyně (Purkynje cells in cerebellum, Purkynje fibres in the heart and improved version of microtome, the first that could be routinely used). Karel Rokytanský, who was born in Hradec Králové, studied at Charles University and his active work and career took place in Vienna. His name has been associated with the recognition of many diseases as well as with the first description of polyarteritis nodosa. In the "Modern Ages" the following pathologists were active at Charles University: Dušan Lambl (Gardia lamblia), Václav Treitz (Treitz hernia), Edwin Klebs (Klebsiella), Isidor Soyka (first description of senile amyloid), Hans Chiari (Budd-Chiari syndrome), Anton Ghon (Ghon complex). Some of these experts can be seen as representatives of German, Austrian, Hungarian and/or Polish pathologists. But this region was in those days part of the Habsburg Empire, where all of these nations lived under the rule of the same monarchy. In addition, it was common at that time, that the experts during their professional career worked at different universities in different countries; which must have been a source of valuable experience – a situation which ESP would like to restore and support in the training of our young colleagues.

The first Association of Czech Physicians was established in 1862 and Purkyně became its first chairman. Among the members of this Association one can find the name of Rudolf Virchow. After the First World War, when the Czechoslovak Republic was created, and Czechs gained independence again, the new era of pathology started. Departments of pathology have been established in many cities and old buildings were renovated. However, this period was very short. During World War II, all universities were forcefully closed, and only basic practice continued. Among the experts of this era the name *Heřman Šikl* should be emphasized. He described the causative association between the exposure to radon and the development of lung cancer in miners. In recognition of that, a letter arrived from Sweden advising that he should be nominated for the Nobel price. Unfortunately, this happened several days after his premature death. His successor was *Blahoslav Bednář* (Bednar tumor: pigmented dermatofibrosarcoma protuberans). Bednář played an im-

portant role in stimulating a post-war revival of Czechoslovak pathology. He actively contributed to the establishment of the Czech and Slovak Society of Pathology in 1956 and due to his influence, the official journal Czecho-Slovak Pathology has been established and published quarterly since 1965. The Institute of Pathology was substantially modernised under his leadership; several laboratories, especially immunohistochemistry and electron microscopy started functioning, which have been prerequisites for subsequent development of various specialisations including nephropathology. Czech pathology has had a long tradition in transplant and renal pathology. In 2016 we celebrated 50 years' anniversary of the first successful kidney transplant.

After the World War II both the local and national slide seminars have been regularly taking place, the Society began organising a yearly national conference and pathologists have also become active participants in many clinical programmes and meetings - mainly focused on oncology. However, the contact with the colleagues on the other side of the "Iron Curtain" was, euphemistically speaking, very limited and it was impossible to organise any intership abroad. For decades our professional development was restricted by poor access to the new information and by a lack of funding, but many of us tried to compensate that by enthusiasm.

After the Velvet Revolution (1989) the Czech pathologists have started forming links with pathology departments and colleagues abroad. Simultaneously, market opening allowed modernisation of our labs. Some of us have taken advantage of the friendly help from our colleagues from EU and US and utilised it in starting a new era of the Czech pathology. There are now 8 medical faculties with Institutes of Pathology. The Society has 365 pathologists but, unfortunately, more than 100 members are over the age of 60 and may soon retire. Many members of our Society have invested a lot of time and energy into transferring their experience to the next generation by preparing textbooks, educational courses and by organising scientific meetings. Our Society together with various International and Czech Clinical Societies has hosted or contributed to a lot of scientific meetings devoted mainly to the interdisciplinary co-operation and projects (e.g. during last year: ESMO Prague ONCO, Mutation day, OECI Oncology days Brno 2017). Almost all of our pathology meetings have an international part of the program with well-known invited speakers from Europe and the US. The Czech Society of Pathology twice hosted the ESP Congress in Prague (1987 and 2012). We were among the societies that joined the Pannonia congress initiative, a regional collaboration of the Austrian, Croatian, Hungarian, Slovakian, Slovenian and Czech societies.The 5th Pannonia Congress of Pathology will take place in May 16-19, 2018 Mikulov, Czech Republic.

We are still facing numerous new challenges. It is not only the need to absorb and implement new ideas, new technology, the need for external quality assurance, the necessity to sub-specialize but also to manage increasing burden of routine work and bureaucracy and prepare better condition for young colleagues. However, it is very difficult to put into practice any long-term vision during the time of political disturbances when the duration of the office of the Minister of Health lasts usually only several months and similarly the parliament does not seem to be planning for longer than their own election period. The Czech pathologists endured very hard times in the past and despite the political disturbances, when not only governments but the regimes are changing repeatedly, we still believe that what has not changed is the desire for knowledge which persists regardless of nationality, religion or citizenship.

Ceremony monograph presentation; January 2018. Book written by Professor Povýšil (standing) and colleagues devoted to the pathology of bone and joint diseases

Participants in one of the recent Pathology scientific meetings in Litomyšl

ESP Cytopathology Working Group

Dr. Beatrix Cochand Priollet and Dr. Philippe Vielh

Cytopathology belongs to Pathology and represents, as other subspecialties, a part of this field. As such, the Cytopathology working group holds legitimate reasons for existing within the other working groups of the ESP.

It was the wish of the cytopathologists at the EFCS as well as of the ESP directory board. It is fair ……..nevertheless it is not so obvious!

For all the other subspecialties included in the pathology specialty there is a common part represented by the slides and by the technique required for this slide-making. Therefore, it is relatively easy for a pathologist to rapidly acquire skills in any type of pathology and to switch from uropathology to endocrine pathology or to gynecological pathology if necessary. Many trainings and seminars are organised every year in each country helping the pathologist to learn new skills. For cytopathology, it is completely different. The diagnoses, the diseases, the lesions as well as most of the terms are the same, but the technique as well as the slides screening method is basically different. First the technique: the management of effusions, BAL, urines, deep organs fine needle aspirations, Papsmears etc……. has nothing to do with paraffin blocks cut; stainings are not the same for histological and cytological slides; additionally, the technique may differ from one type of cytology to another and smears technique has nothing to do with the liquid-based cytology or with cytospins. Furthermore, applying molecular technology to cytological material is another challenge. And the differences are also serious for the diagnoses; with the cells alone and with the figures achieved by the cells together the pathologist has to build the histological features. Therefore, practicing cytopathology means: 1. a rather long specific training; 2. a new approach of the diagnostic criteria; 3. a technical part of the lab devoted to these specific samplings.

For all these reasons, it is essential to propose some cytological sessions in a congress devoted to pathology. It is the role of the pathology experts in cytology to show all the techniques and diagnoses feasible with cells only, since obtaining a cytological material is usually based on less invasive methods than pathology and so more acceptable for the patients. It is also our role to explain all these specificities to our young colleagues as well as to all of our colleagues. The organisation of many joint meetings as wished at the ESP and the enrollment of residents in our working group are therefore essential. Developing these actions is currently our main objective.

ESP Trainees Subcommittee

Dr. Charlotte Kweldam and Dr. Daniel G. Pinto

Dear fellow Trainees and Seniors,

Salutations to all! We are the chairs of the new Trainees Subcommittee of the ESP, Charlotte Kweldam (Chair - Netherlands) and Daniel Pinto (Co-chair - Portugal). It is an honor to be representing the residents

of the ESP and we are looking forward to serving you and the European Society to the best of our abilities during the next two years. Our mandate started last September at the ECP2017 in Amsterdam.

The creation of the Trainees Subcommittee of the ESP at the ECP2015 in Belgrade had many purposes, one of which was giving Pathology residents a platform for organisation, communication and cooperation on a European level. The previous Chair and Co-Chair (Aleksandra Starzyńska – Poland and Rui Oliveira – Portugal) have already established a basic framework, which we plan to expand in the coming years. We would like to take this opportunity to thank them for their hard work.

There are plenty opportunities laying ahead for European residents. Globalisation, internet and social media enable now more than ever an increasing exchange of experiences, challenges and solutions between different countries, from which we can only benefit. And although today there are still significant differences in medical labour and residency from country to country, we believe European residents face comparable challenges in their day to day lives, better discussed and perhaps solved at the international level.

As representatives for European residents we aim to facilitate this process, bringing residents together and being a force for inter-institutional and international cooperation in Europe. We also aim to promote the exchange of knowledge and excellence of all our peers.

As our first contribution to this newsletter, we would like to bring you up to date on what we have accomplished so far:

- We have set up an official ESP trainee Facebook group
- Secured, with the help of ESP Newsletter Editor in Chief Prof. Gordan Vujanić and ESP Director General Dr. Raed Al Dieri, a permanent space in this newsletter to present our activities, thoughts and announcements.
- Organised several lectures for the ECP2018 in Bilbao that will soon be announced officially
- Developed a questionnaire about residency in Europe aimed at all European residents as an effort to highlight the different challenges we face, and to make our voices heard in the discussion of a possible future common European Examination.

We want to be an active and inclusive trainee subcommittee and we hope to give much back to you, our fellow residents. However, to achieve what we have proposed, we also need your help. We would therefore like to ask four things from you:

- **Contribute!** We are looking for collaborators of the subcommittee. You can apply by sending an e-mail to kweldam.esp@gmail.com
- **Participate!** Look us up on Facebook and participate in the discussions. We are counting on you.
- **Reply!** To our questionnaire, which you can find here. It will help guide the discussion on the future of harmonisation of residencies in Europe, so it is very important that you reply.
- **Pay attention!** Soon you will hear more from us about the social program for residents in the next ECP and our resident sessions.

Feel free to contact us for any reason. We hope to hear back from all of you. Remember, as a Subcommittee, we can only do as much as you enable us to do.

See you in Bilbao!

ESP Task Force for Pathology and Public

By Prof. Sanja Milenkovic

Pathology is a part of medicine that demands to be presented to the public and to become more visible and recognizable with all its distinctiveness. It is not just as a profession; it is a part of medicine that requires close communication with patients, as well as with healthy people of different target groups. Last year within the ESP framework, the Task Force (TF) for Promotion of Pathology was established. Based on similar models of pathologists' associations around the globe, TF gathers enthusiastic and highly motivated colleagues: Sanja Milenkovic, Serbia (coordinator) and members: Andreas C. Lazaris (Greece), Tina Di Caterino (Denmark), Marina Kos (Croatia), and Raed Al Dieri (ESP Office).

ESP Special Session regarding Pathology and Public has been organised within annual ESP Congresses for four times now (London 2014, Belgrade 2015, Cologne 2016, Amsterdam 2017). Each time, the interest of the audience increased. Among others, representatives of various patients` societies are highly interested in engaging in this specific topic. There is an evident and growing need of patients and their families to be informed and to learn about the importance of work of pathologists in regular medical care. Accordingly, during the 30th ESP Congress in Bilbao, Pathology and Public session will be held.

Equally interesting are ART Path exhibitions (Lisbon 2013, Ioannina 2014, Belgrade 2015, Athens 2016) that are enriching each Congress with creativity. ART Path encourages our colleagues to directly involve and connect with art and apply innovative and entertaining ideas to everyday work. It lets us combine our artistic talents in order to show our profound inspiration – things that we see under the microscope.

International Day of Pathology is celebrated all over the world and on 15th November last year, TF as well as 12 ESP National Societies have prepared specially tailored posters to promote Pathology that can be seen on ESP website, on page dedicated for Pathology and Public. https://www.esp-pathology.org/about-esp/pathology-public/pathology-day.html

The main activities of the Pathology and Public Task Force are:

1. Forming the platform for promotion of pathology in public;
2. Coordinating activities towards the improvement of public promotion of pathology
3. Joining and promoting global actions linked to the International Day of Pathology
4. Creating and gathering content and promotional material for the Pathology in Public

TF is preparing Communication Plan that will focus on visibility of ESP on social networks and among citizens and patients. We hope to include more ESP members in our activities in order to create innovative solutions and promote our profession which we all care about. We consider that engaging patients as well as other pathologists is extremely important and inseparable in fulfilling the higher goal – promotion of pathology as a science. In order to achieve that, we need to join our forces and ideas in a sustainable and long-term way.

Join us and contribute to the promotion of pathology!

ESP Task force for Synoptic Reporting

By Prof. Iris Nagtegaal

Synoptic reporting is one of the more general innovations in pathology in the current century. We, as pathologists, are at the forefront of harmonisation and standardisation of our diagnostic reporting, leading to very effective communication and linkage to all kinds of registries for quality evaluation and science. Internationally, the ICCR (International Collaboration for Cancer Reporting) is one of the main institutions that advocate this. The ESP is involved in this collaboration. In addition to this initiative, the ESP decided in 2016 to install the taskforce for synoptic reporting and gave me the honorable task of heading it.

The initial inventorisation of pathologists, laboratories and national organisations with interest in the taskforce was met by a very enthusiastic response: members from 33 countries joined the task force. Our aim is to facilitate the implementation of synoptic reporting in your labs and countries. We aim to work closely together with the ICCR in order to develop very high quality synoptic reports.

The first activity was a taskforce meeting at the ECP in Amsterdam "The how and why of synoptic reporting". Despite the early Sunday morning planning, there was a large enthusiastic audience and ample opportunity for interaction. As best practices, John Srigley showed the Canadian experience and I proudly presented the Dutch progress over the last years. Real world data were presented by David Ellis from Australia with an overview of world-wide initiatives as well as information about the ICCR. Tom Baker talked about the USA initiatives and CAP viewpoints. The final part of the meeting was spent discussing improvements for

implementation. An implementation scientist, Marlies Hulscher, talked about barriers and facilitators that should be considered for implementation, and Scott Campbell took synoptic reporting to the next level by informing us about SNOMED harmonization.

During the meeting we decided about future plans of the taskforce. We will explore the current situation in more depth in collaboration with the ICCR by performing an international survey amongst the members of the taskforce, but also amongst the other members of the ESP. We will perform international surveys to detect facilitators and barriers for the implementation of synoptic reporting in Europe. We will strengthen the role of the ESP in ICCR by active collaboration of the members of the task force, in particular by the evaluation of new datasets. Furthermore, we will explore the possibilities of obtaining EU funding for large scale implementation of synoptic reporting in Europe.
At the Bilbao meeting, we will organise a session about synoptic reporting: "The next steps", which will focus on the incorporation of biomarkers and large scale molecular analysis in synoptic reports. In addition, we will discuss the final formatting of the report and how we can further improve the post-analytic design of our synoptic reports, in order to maximize the impact of our work.

IOANNINA UNIVERSITY COURSES IN PATHOLOGY (IUCP)

By Prof. Anna Batistatou

Ioannina University Courses in Pathology (IUCP) are organised in Ioannina, Greece, every year. These are postgraduate courses on selected topics of Human Pathology, which have been offered since 1996. The aim of the courses is to bring together young pathologists and tutors, experts in various fields of Pathology, as well as to encourage active participation of all the colleagues during discussions following the lectures and the slide seminars, providing an in-depth review of Diagnostic Surgical Pathology. An emphasis is given on morphologic features, newly recognised entities and modern techniques. Over the years, besides Greek Pathologists, experts Pathologists from all over Europe have contributed as Tutors. The participants' body has also been international, with the majority being not only from Greece, but from the neighbouring Balkan countries as well. Until 2016, 33 Courses have been organised, and Emeritus Professor Niki J. Agnantis had been the Coordinator of IUCP. As from 2017, the organisation of IUCP has been passed to the Hellenic Society of Pathology (HSP), and Emeritus Prof. N.J. Agnantis has been nominated Honorary President of IUCP.

Emeritus Professor N.J. Agnantis, the founder of IUCP, gave a lecture on IUCP History

The HSP is committed to training young pathologists, but also to continuing education of all pathologists. It has organised the 35th IUCP on "Gastrointestinal Pathology-Oncology", which was held in Ioannina, from 9-11 March 2018.

35th IUCP: As it has been the tradition from the beginning of IUCP (1996), participants were photographed outside the course venue.

The course was under the auspices of the European Society of Pathology. Professor Cord Langner was the invited speaker for the course. The scientific programme included sessions on non-neoplastic and neoplastic upper and lower GI diseases, many slide seminars, and a special lecture on new biomarkers in gastric cancer. This was the biggest IUCP so far, with 81 participants, from Greece and the Balkan countries. Based on the evaluation questionnaire, the overall organisation of IUCP, the selection of topics and the lectures' content were very good to excellent. The knowledge was enhanced during the social programme, where students and tutors had the opportunity to interact and exchange experience and ideas.

External Quality Assessment Programmes of the ESPQA

Prof. Els Dequeker

Biomarker analysis - Why is it important to participate to ESP QA foundation EQA programs?

The reliability and accuracy of biomarker testing in molecular diagnostic laboratories is important for optimal patient care, since its results are used by clinicians to predict the most appropriate treatment option. To date, several biomarkers have been added to the drug labels of targeted therapies as a requirement prior to the administration of drugs to patients with non-small cell lung cancer (NSCLC) and metastatic colorectal cancer (CRC). Technological advances challenge laboratories to implement biomarkers in their routine practice in a correct and time-efficient manner (1).

External quality assessment (EQA) schemes provide laboratories with the opportunity to verify and validate their test methods, to monitor their performance and to compare it to other laboratories worldwide (2). In addition, EQA participation is an integral part of the quality framework of diagnostic laboratories, required by the International Organization for Standardization (ISO 15189) (3) and the Clinical Laboratory Improvement Amendments (4).

Since many years , the European Society of Pathology (ESP) has organized a yearly EQA scheme for biomarker analysis in NSCLC (**http://lung.eqascheme.org**) and CRC (**http://kras.eqascheme.org**) (5, 6) open to all laboratories world-wide (**Table 1**).

ESP CRC EQA Scheme **Sample distribution in 1 round**
▪*KRAS* and *NRAS (*mandatory*)*
▪*BRAF (*optional*)*
▪10 FFPE resections or cell lines for variant analysis
ESP NSCLC EQA scheme **Sample distribution in 3 rounds**
***ALK* subscheme**
▪FISH (5 FFPE resections or cell lines + 5 FISH digital cases)
▪IHC (5 FFPE resections)
▪Technical evaluation of ALK IHC staining
***ROS1* subscheme**
▪FISH (5 FFPE resections or cell lines + 5 FISH digital cases)
▪IHC (5 FFPE resections)
▪Technical evaluation of ROS 1 IHC staining
***PDL1* subscheme**
▪IHC (6 FFPE resections or cell lines + 6 digital cases)
▪Technical evaluation of PDL1 IHC staining
Molecular subscheme
▪*EGFR* variant analysis (mandatory)
▪*BRAF* or *KRAS* variant analysis (optional)
▪10 FFPE resections or cell lines for variant analysis
c-MET (pilot) subscheme - Registrations open in April 2018
▪exon 14 skipping
▪5 FFPE resections or cell lines for variant analysis
ctDNA pilot EQA scheme **Sample distribution in 1 round**
▪*EGFR* variant analysis
▪5 plasma samples for variant analysis

Table 1: Available subschemes and material provided for the ESP Lung and Colon EQA schemes.

The organization of the ESP EQA schemes is performed in collaboration with the coordination center (BQA Research Unit of KU Leuven) which is accredited according to the ISO 17043 standard for conformity assessment of proficiency testing (7), and a group of enthusiastic experts and reference laboratories to prepare and validate the EQA samples (see above mentioned websites for more information). The set-up of each scheme is conform to the guideline on the requirements of EQA programs in molecular pathology (8). Participants are asked to analyze provided formalin-fixed paraffin embedded (FFPE) samples using their routine procedures, to submit diagnostic reports on three cases based on mock clinical information, and to complete an electronic datasheet

with genotyping results and additional information on laboratory characteristics and analysis methods.

Scheme results are assessed by an international team of experts. All laboratories receive a certificate of participation, a general report summarizing the scheme results and individual feedback. Successful participants according to the pre-defined score criteria (8) (a genotyping score of ≥90% on the total achievable score for NSCLC and CRC, and no major genotyping errors for CRC, or more than a score 40% on the technical evaluation for ALK, ROS1 and PDL1 IHC) are published on the EQA website. Results of the latest 2017 ESP EQA schemes are represented in **Table 2**.

Table 2: Overview of performance in the 2017 ESP EQA schemes. Preliminary data.

		# participants	# countries	# successful participants (%)	Average analysis score in %	Average reporting score in %
NSCLC	*ALK* FISH	117	28	92 (79.3)	93.0	76.5
	ALK IHC	109	31	90 (82.6)	95.0	73.3
	ALK IHC technical	95	32	92 (96.9)	87.0	N/A
	ROS1 FISH	85	23	70 (82.4)	93.2	85.5
	ROS1 IHC	53	20	50 (94.3)	97.0	87.0
	ROS1 IHC technical	52	21	52 (100.0)	78.1	N/A
	PD-L1 IHC (pilot)	78	28	55 (70.5)	91.1	89.5
	PD-L1 IHC technical (pilot)	67	29	54 (80.6)	76.1	N/A
	Molecular: *EGFR* (mandatory)	101	32	59 (58.4)	91.0	86.1
	Molecular: *KRAS* (optional)	51	18	50 (98.0)	98.1	88.0
	Molecular: *BRAF* (optional)	47	18	46 (97.9)	98.6	87.3
CRC	*KRAS* and *NRAS* (mandatory) *BRAF* (optional)	105	29	63 (60.0)	93.0	87.3

Based on the information and results collected during the EQA scheme, the BQA Research Unit also performs longitudinal research to improve patient safety on the long term. Previously, this research revealed the following important topics:

- That obtaining laboratory accreditation and specific laboratory characteristics have a positive influence on a rapid implementation of novel biomarkers in routine (9).
- That oncologists can rely on the quality RAS testing as observed in EQA but need to be aware that the testing laboratory participates successfully in EQA programs (10).
- That NGS can be a reliable technique, only if essential quality control, like the reportable range, during analysis is applied and reported (11).
- That frequent EQA participation has a positive influence on the overall genotyping score, and error rates on sample level has diminished over time during the 2012 and 2015 Lung EQA schemes (12).
- That the methods, region and estimations for neoplastic cell estimation are highly variable within Europe (13).
- That reporting scores assessed by EQA providers improved over time, although the extent to which currently existing reporting guidelines are being implemented is limited (14).

In addition, several ongoing projects are focusing on the improvement of critical elements in molecular pathology on multiple levels, from laboratories to pathologists and clinicians. For laboratories interested to participate: registrations are still open for some schemes (Table 1). For more information or questions, please feel free to contact the EQA coordination at one of the mail addresses: lung.eqa@kuleuven.be; colon.eqa@kuleuven.be *(Elisabeth Dequeker, Cleo Keppens, Kelly Dufraing, Kaat Van Casteren).*

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ANALECTA MEDICA
Dr. Loukas Kaklamanis

Relative Performance of HPV and Cytology Components of Cotesting in Cervical Screening
Schiffman M, Kinney WK, Li C Cheung et al. Li C Cheung ***JNCI: Journal of the National Cancer Institute*****,** 2017 https://doi.org/10.1093/jnci/djx225

The main goal of cervical screening programs is to detect and treat precancer before cancer develops. Human papillomavirus (HPV) testing is more sensitive than cytology for detecting precancer. However, reports of rare HPV-negative, cytology-positive cancers are motivating continued use of both tests (co-testing) despite increased testing costs.

Methods. We quantified the detection of cervical precancer and cancer by cotesting compared with HPV testing alone at Kaiser Permanente Northern California (KPNC), where 1 208 710 women age 30 years and older have undergone triennial cervical cotesting since 2003. Screening histories preceding cervical cancers (n = 623) and precancers (n = 5369) were examined to assess the relative contribution of the cytology and HPV test components in identifying cases. The performances of HPV testing and cytology were compared using contingency table methods, general estimating equation models, and nonparametric statistics; all statistical tests were two-sided.

Results. HPV testing identified more women subsequently diagnosed with cancer ($P < .001$) and precancer ($P < .001$) than cytology. HPV testing was statistically significantly more likely to be positive for cancer at any time point ($P < .001$), except within 12 months ($P = .10$). HPV-negative/cytology-positive results preceded only small fractions of cases of precancer (3.5%) and cancer (5.9%); these cancers were more likely to be regional or distant stage with squamous histopathology than other cases. Given the rarity of cancers among screened women, the contribution of cytology to screening translated to earlier detection of at most five cases per million women per year. Two-thirds (67.9%) of women found to have cancer during 10 years of follow-up at KPNC were detected by the first co-test performed.

Conclusions. The added sensitivity of co-testing vs HPV alone for detection of treatable cancer affected extremely few women.

Cancer-associated fibroblasts induce metalloprotease-independent cancer cell invasion of the basement membrane
Glentis A, Oertle P, Mariani P, et al.
***Nature Communications* 8**, Article number: 924 (2017) doi:10.1038/s41467-017-00985-8

At the stage of carcinoma in situ, the basement membrane (BM) segregates tumor cells from the stroma. This barrier must be breached to allow dissemination of the tumor cells to adjacent tissues. Cancer cells can perforate the BM using proteolysis; however, whether stromal cells play a role in this process remains unknown.

Here we show that an abundant stromal cell population, cancer-associated fibroblasts (CAFs), promote cancer cell invasion through the BM. CAFs facilitate the breaching of the BM in a matrix metalloproteinase-independent manner. Instead, CAFs pull, stretch, and soften the BM leading to the formation of gaps through which cancer cells can migrate. By exerting contractile forces, CAFs alter the organization and the physical properties of the BM, making it permissive for cancer cell invasion.

Blocking the ability of stromal cells to exert mechanical forces on the BM could therefore represent a new therapeutic strategy against aggressive tumors.

Detection and localization of surgically resectable cancers with a multi-analyte blood test
Joshua D. Cohen, Lu Li, Yuxuan Wang, et al.
Science 18 Jan 2018:eaar3247 DOI: 10.1126/science.aar3247

Earlier detection is key to reducing cancer deaths. Here we describe a blood test that can detect eight common cancer types through assessment of the levels of circulating proteins and mutations in cell-free DNA.

We applied this test, called CancerSEEK, to 1,005 patients with non-metastatic, clinically detected

cancers of the ovary, liver, stomach, pancreas, esophagus, colorectum, lung, or breast. Cancer SEEK tests were positive in a median of 70% of the eight cancer types. The sensitivities ranged from 69% to 98% for the detection of five cancer types (ovary, liver, stomach, pancreas, and esophagus) for which there are no screening tests available for average-risk individuals.

The specificity of CancerSEEK was > 99%: only 7 of 812 healthy controls scored positive. In addition, CancerSEEK localized the cancer to a small number of anatomic sites in a median of 83% of the patients.

Association of Alterations in Main Driver Genes With Outcomes of Patients With Resected Pancreatic Ductal Adenocarcinoma

Zhi Rong Qian, DA. Rubinson, JA. Nowak, et al
JAMA Oncol. Published online November 2, 2017. doi:10.1001/jamaoncol.2017.3420

Importance. Although patients with resected pancreatic adenocarcinoma are at high risk for disease recurrence, few biomarkers are available to inform patient outcomes.

Objective. To evaluate the alterations of the 4 main driver genes in pancreatic adenocarcinoma and patient outcomes after cancer resection.

Design, Setting, and Participants. This study analyzed protein expression and DNA alterations for the *KRAS*, *CDKN2A*, *SMAD4*, and *TP53* genes by immunohistochemistry and next-generation sequencing in formalin-fixed, paraffin-embedded tumors in 356 patients with resected pancreatic adenocarcinoma who were treated at the Dana-Farber/Brigham and Women's Cancer Center (October 26, 2002, to May 21, 2012), University of Rochester Medical Center (March 1, 2006, to November 1, 2013), or Stanford Cancer Institute (September 26, 1995, to May 22, 2013). Associations of driver gene alterations with disease-free survival (DFS) and overall survival (OS) were evaluated using Cox proportional hazards regression with estimation of hazard ratios (HRs) and 95% CIs and adjustment for age, sex, tumor characteristics, institution, and perioperative treatment. Data were collected September 9, 2012, to June 28, 2016, and analyzed December 17, 2016, to March 14, 2017.

Results. Of the 356 patients studied, 191 (53.7%) were men and 165 (46.3%) were women, with a median (interquartile range [IQR]) age of 67 (59.0-73.5) years. Patients with *KRAS* mutant tumors had worse DFS (median [IQR], 12.3 [6.7 -27.2] months) and OS (20.3 [11.3-38.3] months) compared with patients with *KRAS* wild-type tumors (DFS, 16.2 [8.9-30.5] months; OS, 38.6 [16.6-63.1] months) and had 5-year OS of 13.0% vs 30.2%. Particularly poor outcomes were identified in patients with *KRAS* G12D-mutant tumors, who had a median (IQR) OS of 15.3 (9.8-32.7) months. Patients whose tumors lacked CDKN2A expression had worse DFS (median, 11.5 [IQR, 6.2-24.5] months) and OS (19.7 [10.9-37.1] months) compared with patients who had intact CDKN2A (DFS, 14.8 [8.2-30.5] months; OS, 24.6 [14.1-44.6] months). The molecular status of *SMAD4* was not associated with DFS or OS, whereas *TP53* status was associated only with shorter DFS (HR, 1.33; 95% CI, 1.02-1.75; *P* = .04). Patients had worse DFS and OS if they had a greater number of altered driver genes. Compared with patients with 0 to 2 altered genes, those with 4 altered genes had worse DFS (HR, 1.79 [95% CI, 1.24-2.59; *P* = .002]) and OS (HR, 1.38 [95% CI, 0.98-1.94; *P* = .06]). Five-year OS was 18.4% for patients with 0 to 2 gene alterations, 14.1% for those with 3 alterations, and 8.2% for those with 4 alterations.

Conclusions and Relevance. Patient outcomes are associated with alterations of the 4 main driver genes in resected pancreatic adenocarcinoma.

Germline BRCA mutation and outcome in young-onset breast cancer (POSH): a prospective cohort study

Ellen R Copson,Tom C Maishman,Will J Tapper et al.
The Lancet Oncology, 2018 DOI: https://doi.org/10.1016/S1470-2045(17)30891-4

Retrospective studies provide conflicting interpretations of the effect of inherited genetic factors on the prognosis of patients with breast cancer. The primary aim of this study was to determine the effect of a germline BRCA1 or BRCA2 mutation on breast cancer outcomes in patients with young-onset breast cancer.

Methods. We did a prospective cohort study of female patients recruited from 127 hospitals in the UK aged 40 years or younger at first diagnosis (by histological confirmation) of invasive breast cancer. Patients with a previous invasive malignancy (except non-melanomatous skin cancer) were excluded. Patients were identified within 12 months of initial diagnosis. BRCA1 and BRCA2 mutations were identified using blood DNA collected at recruitment. Clinicopathological data, and data regarding treatment and long-term outcomes, including date and site of disease recurrence, were collected from routine medical records at 6 months, 12 months, and then annually until death or loss to follow-up. The primary outcome was overall survival for all BRCA1 or BRCA2 mutation carriers

(BRCA-positive) versus all non-carriers (BRCA-negative) at 2 years, 5 years, and 10 years after diagnosis. A prespecified subgroup analysis of overall survival was done in patients with triple-negative breast cancer.

Recruitment was completed in 2008, and long-term follow-up is continuing.

Findings. Between Jan 24, 2000, and Jan 24, 2008, we recruited 2733 women. Genotyping detected a pathogenic BRCA mutation in 338 (12%) patients (201 with BRCA1, 137 with BRCA2). After a median follow-up of 8·2 years (IQR 6·0–9·9), 651 (96%) of 678 deaths were due to breast cancer. There was no significant difference in overall survival between BRCA-positive and BRCA-negative patients in multivariable analyses at any timepoint (at 2 years: 97·0% [95% CI 94·5–98·4] vs 96·6% [95·8–97·3]; at 5 years: 83·8% [79·3–87·5] vs 85·0% [83·5–86·4]; at 10 years: 73·4% [67·4–78·5] vs 70·1% [67·7–72·3]; hazard ratio [HR] 0·96 [95% CI 0·76–1·22]; p=0·76). Of 558 patients with triple-negative breast cancer, BRCA mutation carriers had better overall survival than non-carriers at 2 years (95% [95% CI 89–97] vs 91% [88–94]; HR 0·59 [95% CI 0·35–0·99]; p=0·047) but not 5 years (81% [73–87] vs 74% [70–78]; HR 1·13 [0·70–1·84]; p=0·62) or 10 years (72% [62–80] vs 69% [63–74]; HR 2·12 [0·82–5·49]; p= 0·12).

Interpretation. Patients with young-onset breast cancer who carry a BRCA mutation have similar survival as non-carriers. However, BRCA mutation carriers with triple-negative breast cancer might have a survival advantage during the first few years after diagnosis compared with non-carriers. Decisions about timing of additional surgery aimed at reducing future second primary-cancer risks should take into account patient prognosis associated with the first malignancy and patient preferences.

Low cigarette consumption and risk of coronary heart disease and stroke: meta-analysis of 141 cohort studies in 55 study reports

A.Hackshaw, J K Morris, S. Boniface, et al.
BMJ 2018; 360 doi:
https://doi.org/10.1136/bmj.j5855

Objective To use the relation between cigarette consumption and cardiovascular disease to quantify the risk of coronary heart disease and stroke for light smoking (one to five cigarettes/day)

Design. Systematic review and meta-analysis.

Eligibility criteria for selecting studies. Prospective cohort studies with at least 50 events, reporting hazard ratios or relative risks (both hereafter referred to as relative risk) compared with never smokers or age specific incidence in relation to risk of coronary heart disease or stroke.

Data extraction/synthesis. MOOSE guidelines were followed. For each study, the relative risk was estimated for smoking one, five, or 20 cigarettes per day by using regression modelling between risk and cigarette consumption. Relative risks were adjusted for at least age and often additional confounders. The main measure was the excess relative risk for smoking one cigarette per day ($RR_{1\_per\_day}-1$) expressed as a proportion of that for smoking 20 cigarettes per day ($RR_{20\_per\_day}-1$), expected to be about 5% assuming a linear relation between risk and consumption (as seen with lung cancer). The relative risks for one, five, and 20 cigarettes per day were also pooled across all studies in a random effects meta-analysis. Separate analyses were done for each combination of sex and disorder.

Results. The meta-analysis included 55 publications containing 141 cohort studies. Among men, the pooled relative risk for coronary heart disease was 1.48 for smoking one cigarette per day and 2.04 for 20 cigarettes per day, using all studies, but 1.74 and 2.27 among studies in which the relative risk had been adjusted for multiple confounders. Among women, the pooled relative risks were 1.57 and 2.84 for one and 20 cigarettes per day (or 2.19 and 3.95 using relative risks adjusted for multiple factors). Men who smoked one cigarette per day had 46% of the excess relative risk for smoking 20 cigarettes per day (53% using relative risks adjusted for multiple factors), and women had 31% of the excess risk (38% using relative risks adjusted for multiple factors). For stroke, the pooled relative risks for men were 1.25 and 1.64 for smoking one or 20 cigarettes per day (1.30 and 1.56 using relative risks adjusted for multiple factors). In women, the pooled relative risks were 1.31 and 2.16 for smoking one or 20 cigarettes per day (1.46 and 2.42 using relative risks adjusted for multiple factors). The excess risk for stroke associated with one cigarette per day (in relation to 20 cigarettes per day) was 41% for men and 34% for women (or 64% and 36% using relative risks adjusted for multiple factors). Relative risks were generally higher among women than men.

Conclusions. Smoking only about one cigarette per day carries a risk of developing coronary heart disease and stroke much greater than expected: around half that for people who smoke 20 per day. No

safe level of smoking exists for cardiovascular disease. Smokers should aim to quit instead of cutting down to significantly reduce their risk of these two common major disorders.

Some Recently Published Books

Prof. Metka Volavšek

Atlas of Pulmonary Cytopathology
Christopher J. VandenBussche, Joyce E. Johnson, Morgan Cowan, Paul E. Wakely, Syed Ali
216 pages, 500 illus, ~125 €, Demos medical (2017)

Atlas of Pulmonary Cytopathology With Histopathologic Correlations offers concrete diagnostic guidance for anatomic pathologists to accurately identify pulmonary disease using exfoliative and fine needle aspiration techniques. It not only illustrates the classic cytomorphology of common lung lesions, but also presents and contrasts important problem areas that can lead to erroneous interpretation. Clearly and concisely written by leaders in the field, this volume is a practical desk reference for all facets of the diagnostically challenging areas of pulmonary cytopathology.

The Atlas features more than 500 carefully selected high-resolution images detailing important aspects of the full range of lung diseases and conditions including infections, reactive lesions, benign neoplasms, and malignant tumors such as adenocarcinoma, squamous cell carcinoma, neuroendocrine tumors, malignant mesothelioma, and metastatic tumors. Additionally, the book contains images of the histopathology and gross characteristics of certain lesions to provide morphologic correlations that will be relevant to cytopathologists and surgical pathologists alike. To provide a broader, more enriching perspective, the Atlas features a special chapter on the radiologic characteristics of lung lesions to provide a differential diagnosis through the eyes of an experienced radiologist. This multidisciplinary approach enhances the reader's understanding of how cytopathology, histopathology, and radiologic information together create a powerful tool for understanding the neoplastic, reactive, and infectious disease of the lower respiratory tract.

Atlas of Touch Preparation Cytopathology
Liron Pantanowitz, Juan Xing, Sara E. Monaco
224 pages, 500 illus, , ~135 €, Demos Medical (2017)

This is the first atlas dedicated to touch preparation cytopathology. Written by established pathologists who are at the cutting edge of this minimally-invasive practice, the Atlas of Touch Preparation Cytopathology presents a comprehensive overview and visual reference guide to the diagnostic applications of touch preparations. This visually-stunning book reviews touch preparations corresponding to all major body systems and includes chapters on specimen handling and processing, intraoperative use during frozen sections, as well as on ancillary testing using touch preps. While most cytopathology atlases have images of smears and fluids, they have very little discussion of touch preparations making this volume a one-of-a-kind resource.

The authors, using many picturesque examples in the text, not only include detailed visual and textual discussion of touch preparations but also provide comparative presentations to facilitate correlation with histopathology, FNA smears and ancillary test results. This total coverage illuminates key findings and important considerations of this technique that pathologists can learn from. Written with the practicing pathologist in mind, the Atlas of Touch Preparation Cytopathology is an invaluable book in today's pathology practice where there is increasing utilization of small biopsies that can benefit from intraprocedural evaluation and assessment to maximize diagnostic yield.

Diagnostic Pathology: Normal Histology
Matthew R Lindberg
2nd ed,448 pages, 1400 illus, 250€, Elsevier 2017

Visually stunning and easy to use, this volume in the highly regarded Diagnostic Pathology series covers the normal histology of every organ system. This edition incorporates the most recent scientific and technological knowledge in the field to provide a comprehensive

overview of all areas of normal histology, including introductory chapters on electron microscopy, immunofluorescence, immunohistochemistry and histochemistry, the cell, and the basic organization of tissues.

Atlas of Salivary Gland Cytopathology: with Histopathologic Correlations
Christopher J. VandenBussche, Syed Z. Ali, William C. Faquin, Zahra Maleki, Justin Bishop
184 pages, 400 illus, ~125 €, Demos Medical (2017)

Atlas of Salivary Gland Cytopathology with Histopathologic Correlations is a comprehensive diagnostic guide for anatomic pathologists that accurately identifies salivary gland disease using fine needle aspiration (FNA). It not only illustrates the cytomorphology and histology of salivary gland specimens, but also presents and contrasts common problem areas that can lead to erroneous interpretation. Clearly and concisely written by leaders in the field, this extensive volume is a handy, practical desk reference for all facets of the diagnostically challenging area of salivary gland cytopathology.

The Atlas features more than 400 carefully selected high-resolution color images detailing critical aspects of salivary gland disease and illustrating patterns and diagnostic clues for non-neoplastic lesions, benign lesions, malignant neoplasms, and unusual neoplasms. Additionally, the book's images of the histopathology and gross characteristics of lesions provide morphologic correlations that will be invaluable to cytopathologists and surgical pathologists alike.

Cutaneous Adnexal Neoplasms
Luis Requena, Omar Sangueza
1052 pages, 1042 illus, ~260 €, Springer (2017)

This superbly illustrated book is the most comprehensive available guide to adnexal neoplasms of the skin. More than 70 entities are described in individual chapters that follow a uniform structure: historical review, clinical features, histopathology, histogenesis, immunohistochemistry, molecular anomalies, and treatment. Readers will find state of the art knowledge on all aspects, including the cytogenetic and chromosomal abnormalities associated with each neoplasm. Without exception, the illustrations are high-quality, full-color, original digital pictures. The histopathology images are taken from perfectly cut and stained sections and the immunohistochemistry illustrations are of an unrivalled quality among textbooks of dermatology and dermatopathology. A complete list of references from original description to the present day is also supplied for each neoplasm. Cutaneous adnexal neoplasms are a large and heterogeneous group of benign and malignant lesions. This book will assist the reader in early and correct recognition, which is essential for appropriate choice of treatment and prognostic assessment.

Pathology of the Prostate. An Algorithmic Approach
Antonio Lopez-Beltran, Liang Cheng, Rodolfo Montironi, Maria Rosaria Raspollini
220 pages, 443 illus, ~100 €, Cambridge university press (2017)

Prostate cancer is the most commonly diagnosed non-cutaneous neoplasm in men in the United States and is the second leading cause of cancer mortality. It poses diagnostic challenges in day-to-day practice in misdiagnosis of tumor-like lesions and secondary tumors. This book is a concise, practical guide to prostate pathology and is structured to guide pathologists, both practicing and trainees, in the diagnostic process. Numerous color images and algorithms show, in a practical manner, how to integrate pathologic and immunohistochemical features to reach a correct diagnosis in prostate tumors and tumor-like lesions. The book incorporates recent developments in biomarkers applied to immunohistochemistry, representing the best immunohistochemistry practice applied to current diagnosis of prostate cancer in biopsies and surgical specimens. It takes a multidisciplinary approach to the clinical management of prostate cancer and will also appeal to all healthcare professionals treating patients, particularly urologists, oncologists, biomedical scientists, and researchers. This book provides access to an online version on Cambridge Core, accessed via the code printed on the inside of the cover.

Immunohistochemistry in Diagnostic Dermatopathology
Mai P. Hoang, (Ed.)
312 pages, 443 illus, ~100 €, Cambridge university press (2017)

Rapid and cost-effective immunohistochemistry plays a crucial role in diagnostic pathology. However there are currently very few textbooks dedicated to its role, especially in diagnostic dermatopathology. This comprehensive volume provides a practical guide to the

application of immunohistochemistry in dermatopathology and bridges the knowledge gap by updating readers with helpful diagnostic immunostains as well as recently available ones. Organized by lines of differentiation, each chapter includes a synopsis of applicable antibodies, pertinent immunohistochemical panels, summary tables outlining the staining patterns of the entities in the differential diagnosis, and case studies. The twelve chapters cover entities based on lineage including epithelial, melanocytic, lymphoid, adnexal and soft tissue. The role of immunohistochemistry as a screening test for underlying genetic syndromes, immunobullous diseases, detection of infectious agents and therapeutic purpose is also discussed in detail. This is an essential text for pathologists, dermatopathologists and residents in pathology and dermatology.

Liquid Biopsy in Cancer Patients. The Hand Lens for Tumor Evolution
Giordano, Antonio, Russo, Antonio, Rolfo, Christian (Eds.)
Series: Current Clinical Pathology
214 pages, 81 illus, ~90 €, Springer (2017)

This text is designed to provide readers with a useful and comprehensive resource and state-of-the-art overview about the new, growing and fast-expanding field of "liquid biopsy" for the management of cancer patients. The liquid biopsy represents an important turning point in oncology since it provides a tool for a serial monitoring of disease. Liquid biopsy is our "hand lens" to follow molecular changes that characterize tumor development and progression. The book provide a unique and valuable resource on the clinical relevance of liquid biopsy as well as on the technical aspects of liquid biopsy analysis. All invited authors are recognized experts in their field.

Diagnostic Immunohistochemistry. Theranostic and Genomic Applications
David J Dabbs
5th ed, 944 pages, 1450 illus, ~180 €, Elsevier (2018)

User-friendly and concise, the new edition of this popular reference is your #1 guide for the appropriate use of immunohistochemical stains. Dr. David J. Dabbs and leading experts in the field use a consistent, organ system approach to cover all aspects of the field, with an emphasis on the role of genomics in diagnosis and theranostic applications that will better inform treatment options. Each well-written and well-researched chapter is enhanced with diagnostic algorithms, charts, tables, and superb, full-color histologic images, making this text a practical daily resource for all surgical pathologists.

Hematopathology
Eric D. Hsi
Series: Foundations in Diagnostic Pathology
3rd ed, 800 pages, 800 illus, ~160 €, Elsevier (2017)

With its highly templated, easy-to-use format and new information throughout, the third edition of Hematopathology, a volume in the Foundations in Diagnostic Pathology series, is an essential text for residents and pathologists. Throughout this practical reference, traditional morphologic diagnostic pathology is supplemented with clinical, immunohistochemical, and molecular genetic information. Fully revised to include recent advances in the field, this affordable resource by Dr. Eric D. Hsi is ideal for study and review as well as everyday clinical practice.

Pioneers in Pathology
Jan G van den Tweel, (Ed.)
Series: Encyclopedia of Pathology
569 pages, 210 illus, ~ 280€, Springer (2017)

This book presents a collection of short biographies and works of the pioneers in pathology. The alphabetically arranged entries allow readers to quickly and easily find the information they need.

Introduction to Statistical Methods in Pathology
Amir Momeni, Matthew Pincus, Jenny Libien,
e-book, ~ 100€, Springer (2018)

This text provides a comprehensive and practical review of the main statistical methods in pathology and laboratory medicine. It introduces statistical concepts used in pathology and laboratory medicine. The information provided is relevant to pathologists both for their day to day clinical practice as well as in their research and scholarly activities. The text will begins by explaining the fundamentals concepts in statistics. In the later sections, these fundamental concepts are expanded and unique applications of statistical methods in pathology and laboratory medicine practice are introduced. Other sections of the text explain research methodology in pathology covering a broad range of topics from study design to analysis of data. Finally,

data-heavy novel concepts that are emerging in pathology and pathology research are presented such as molecular pathology and pathology informatics.

The Bethesda System for Reporting Thyroid Cytopathology. Definitions, Criteria, and Explanatory Notes
Syed Z. Ali, Edmund Cibas, (Eds.)
2nd ed, 326 pages, 224 illus, ~ 50€, Springer (2018)

The first edition of The Bethesda System for Reporting Thyroid Cytopathology was published in 2010 and has greatly influenced the practice of thyroid cytopathology. The terminology proposed and illustrated in this text has been widely adopted not only in the U.S. but also abroad. It has become an essential text for pathology trainees and practicing pathologists examining thyroid fine needle aspiration (FNA) specimens.
Since 2010, there have been a number of important advances in the management of patients with nodular thyroid disease and in the understanding of the biology of thyroid cancer. This new edition includes these advances that impact terminology for reporting thyroid cytopathology. In particular, it incorporates a discussion of the recently implemented and now widespread use of molecular testing of thyroid FNA samples, which has transformed the management of patients with nodular thyroid disease in the U.S.. In addition, this edition accommodates the recent changes to the classification of thyroid cancer, most notably the introduction of a new thyroid diagnosis, that of "non-invasive follicular tumor with papillary-like nuclear features (NIFTP)".

The Milan System for Reporting Salivary Gland Cytopathology
W.C. Faquin, E.D. Rossi, Baloch, Z., G.A. Barkan, M. Foschini, D.F.I. Kurtycz, M. Pusztaszeri, P. Vielh, (Eds.)
182 pages, 190 illus, ~ 65€, Springer (2018)

This volume describes a uniform international approach for classifying and reporting salivary gland FNA samples. The new reporting system is evidence-based using data from the literature as well as upon the experience of a multi-disciplinary group of leading experts involved in the field of salivary gland cytopathology. Each diagnostic category of this novel salivary gland reporting system includes detailed descriptions of the cytologic criteria as well as a comprehensive set of photomicrographs demonstrating all of the key microscopic features along with annotated descriptions for each image.

FORTHCOMING MEETINGS

Prof. Metka Volavšek

Practical updates in lymphoma
United States & Canadian Academy of Pathology (USCAP)
April 11-13, 2018
Palm Springs, United States (USA)

Diagnostic Thyroid Pathology and Cytology
Vincent Academy of Pathology (VAP)
April 16-18, 2018
Linz, Austria

Surgical Pathology of the Gastrointestinal Tract
April 16-20, 2018
Chicago, United States (USA)

All Wales Lymphoma Panel Course 2018
All Wales Lymphoma Panel
April 16-17, 2018
Cardiff, United Kingdom

Diagnostic Soft Tissue Pathology
Vincent Academy of Pathology (VAP)
April 19-21, 2018
Linz, Austria

2nd Annual Stars of the American Registry of Pathology Fascicles in Partnership with Johns Hopkins Pathology
Johns Hopkins Medicine
April 28-29, 2018
Baltimore, United States (USA)

Gastrointestinal, Liver, and Pancreatic Pathology
Harvard Medical School
April 30-May 3, 2018
Boston, United States (USA)

McGill Cytopathology Review Course

McGill University
May 14-15, 2018
Montréal, Canada

The Napa Valley Dermpath Conference
Pathology Education Partners
May 14-18, 2018
Silverado, United States (USA)

The Napa Valley Surgpath Conference
Pathology Education Partners
May 14-18, 2018
Silverado, United States (USA)

5th Pannonia Congress of Pathology
May 16-19, 2018
Mikulov, Czech Republic

9th Edinburgh Dermatopathology Tutorial 2018
"Practical Updates in Dermatopathology: Neoplastic and non-neoplastic aspects of Dermatopathology Conjunctival Pathology"
May 31 – June 1, 2018
Edinburgh, Scotland

Course GENITO-URINARY TRACT TUMORS: An update in the era of personalized therapy. Focus on emerging topics in kidney, urinary tract and uterus
PREIS School
May 31 - June 1, 2018
Florence, Italy

The Brave New World of Head and Neck Pathology: Updates on the WHO and More
United States & Canadian Academy of Pathology (USCAP)
June 2-3, 2018
Palm Springs, United States (USA)

Postgraduate course Diagnostic Gastrointestinal & Pancreatic Pathology
June 7-9, 2018
Graz, Austria

41st European Congress of Cytology (ECC 2018)
June 10-13, 2018
Madrid, Spain

Diagnostic Gynecologic Pathology
Vincent Academy of Pathology (VAP)
June, 20-22, 2018
Linz, Austria

European Society of Pathology Academy (ESPA)
June 23-26, 2018
Brussels, Belgium

30th European Congress of Pathology "Pathology: Path to Precision Medicine"
European Society of Pathology
September 8-12, 2018
Bilbao, Spain

Diagnostic Pitfalls in Urologic Pathology
United States & Canadian Academy of Pathology (USCAP)
September 22-23, 2018
Palm Springs, United States (USA)

22nd International Surgical Pathology Symposium
Mayo Clinic College of Medicine and Science
September 25–28, 2018
Venice, Italy

UEG Week 2018
October 20-24, 2018
Vienna, Austria
www.ueg.eu/week

19th Meeting of the European Association for Haematopathology (EAHP)
September 29 – October 4, 2018
Edinburgh, Scotland