

MESSAGE FROM THE PRESIDENT OF THE ESP

By Prof. Pierre Bedossa



Dear colleagues,
Dear friends,

My official start as president of our Society was last September, at the conclusion of the Belgrade congress. With a few months behind me, I would like to give you my first impressions. The ESP certainly is a time-honored institution but it is also a very energetic society. There are so many things already on their way or about to be started that adding new stones to the edifice would be a little bit unrealistic at this point. It is now time for consolidation.

We have secured and reshaped our office with Dr Raed Al Dieri as Scientific Director and Ms Lora Kostova as Communication Specialist, and we are planning to add some more people to the team. So please do not hesitate to contact them with any question or suggestion you may have. The ESP office is also your home.

What has jumped quickly to my mind is that the ESP is a hub with many other organizations running around. Thanks to the dynamism of some of our members, we have been approached by European scientific societies involved in various fields (different clinical specialties, oncology, research organizations...) to develop partnerships through training programs, joint meetings, etc. This interest is simply the mark of recognition of our dynamism, scientific input, and investment in training and education. But these collaborations will be fruitful only if some of us help to insure the follow-up of these programs. I want to thank those of you who have been actively involved in these projects so far.

In September 2016 our annual congress will be held in Cologne. This will be the first joint congress with the International Academy of Pathology, represented by its German Division. It is a new challenge but also a fantastic opportunity to spread the visibility of the ESP outside Europe. The congress, whose organization is advancing on the right track, will surely be a great success thanks to the enormous amount of work being done by so many, including the CPO Hanser staff, the scientific committee, our working groups and the German Division of the IAP. I encourage all of you to attend the Cologne congress. This may pave the way for future collaborations outside Europe. Of interest, the congress will include "special sessions" organized in association with our partners (UEG, ESGO, IAP, and ESMO, to name a few), with which we have signed collaboration agreements. Your active participation is more than welcome.

There is still a lot to come. A call for a joint fellowship between the ESP and the EORTC (European Organisation for Research and Treatment of Cancer) is now being launched. Our first recipients of the Giordano's fellowships will be soon at work, the ESP foundation has started, a new website is under construction... All these initiatives have been started under the leadership of the previous ESP presidents and now are becoming real, but these programs are costly. Thanks to our treasurer, Prof. Marco Santucci, our finances are on the safe side, but please do not forget to renew your membership if you have not done so already.

A source of great hope for the future of our Society is the active involvement of trainees, who have structured themselves into a resident committee. This committee will significantly participate in the decision-making process of our Society and will strongly influence its future. This is very good news because trainees are our future and the best for pathology is yet to come!

EDITOR'S MESSAGE

By Prof. Aurelio Ariza



This winter issue of the Newsletter, baked in the warmth of an unseasonable weather, starts with Prof Pierre Bedossa's delineation of his judicious consolidating strategy as ESP president. He also emphasises the many opportunities offered by the ESP-IAP joint congress to be held in Cologne in September.

Further on Prof Dietmar Schmidt, on behalf of the IAP, makes a compelling appeal for pathologists from all over the world to converge on Cologne in the autumn. His enthusing words, besides praising the event's great scientific value, are a trove of practical information about Cologne and an accomplished encapsulation of that city's unique cultural flavour. In the most recent ESP congresses, strolling along the banks of the Tagus, the Thames, and the Sava rivers was a great source of pleasure. Enjoying small (albeit reiterative) dosages of Kölsch beer in the numberless pubs by the banks of the Rhine will doubtless prolong and intensify the experience.

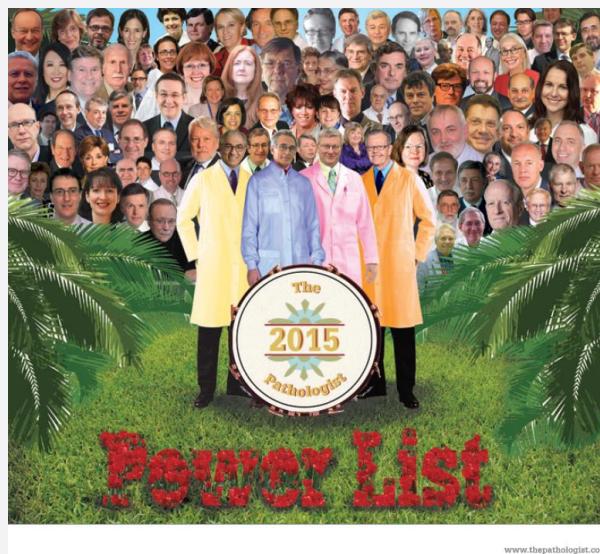


Also to be mentioned in regard to the IAP is the promising choice of a prominent Greek pathologist, Prof George Kontogeorgos, as its president-elect. Hopefully, the leadership of Prof Kontogeorgos (he'll become IAP president in November 2016) will greatly facilitate a still closer collaboration between the IAP and the ESP, in line with the great stride made by the Cologne joint venture.

Likewise, well deserving of congratulations are the many European pathologists selected by *The Pathologist* for its "2015 Power List." In addition

to Prof Kontogeorgos, the list includes five former ESP presidents (Manuel Sobrinho Simões, Fred Bosman, Michael Wells, Fátima Carneiro, and Han van Krieken). Certainly, the picture on the cover of *The Pathologist* November 15 issue, with two former ESP presidents (Manuel Sobrinho Simões and Michael Wells) in the Beatles-like leading quartet, colourfully proclaims the worldwide swing and clout of our Society. But that's not all. Manuel Sobrinho Simões, always the consummate gentleman pathologist, has been voted Number One on that Power List! *Muitas felicitações por tua carreira, campeão!*

The sight of five former presidents on *The Pathologist* cover elicits musings on the importance of the ESP historical background. Due attention to the latter was paid by the ESP when a few months ago it commissioned Mr Andrew Wilson, a professional writer, to create a book about the first half-century of our Society (founded in 1964).



Mr Wilson now offers us juicy excerpts of his book's initial chapters, with more to follow in upcoming Newsletter issues. Read these excerpts and experience the unbridled whetting of your historical appetite. Moreover, you still have time until March 11 to make your personal contribution to the book. Andrew is eagerly waiting for your memories and material at wilsonaf@clara.co.uk!

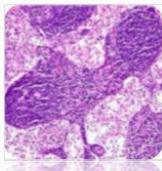
In the article reserved for national societies we mentally travel to the Pannonian plain to get better acquainted with the Hungarian Society of Pathology (HSP). Its history and current endeavours are masterly depicted by Prof Janina Kulka, president of the Hungarian Division of the IAP, and Prof Gábor Méhes, president of the HSP, who effectively convey the HSP vibrant mood in their detailed text and telling illustrations.

As for the section dealing with working groups and companion societies, it is now the turn of the European Association for Cardiovascular Pathology (EACVP), a most dynamic ESP companion society. Prof Ivana Kholová, chair of the AECVP membership committee, draws our attention to the opportunities for networking that her multi-disciplinary society offers to everybody interested in cardiovascular pathology.

To conclude, Dr Loukas Kaklamanis offers us his artful sifting of the most impacting medical literature (*Analecta Medica*) and Prof Gordan Vujanić, our associate editor, keeps us pointedly informed of the recently published books and upcoming meetings of our speciality.

Last but not least, don't miss Prof Dina Tiniakos' fourth Tweet-the-Term instalment, to be found just following these lines.

Enjoy!



Tweet the Term #Anatomy

Derived from “*anatemno*”, a compound word from “*ana*” meaning “up” and “*temno*” meaning “to cut” in ancient Greek

WELCOME TO COLOGNE!

By Prof. Dietmar Schmidt, Congress President IAP



The XXXI International Congress of the International Academy of Pathology (IAP) and the 28th Congress of the European Society of Pathology (ESP) will be held from 25 to 29 September 2016 in the KölnMesse in Cologne, Germany.



The congress venue: KölnMesse

It will be a joint venture between these two organizations. On behalf of the International Academy of Pathology I would like to invite you to join us for an exciting and stimulating congress that will reflect recent developments in diagnostic and



Tourists also visit Cologne by cruise

molecular pathology. The motto of the Congress – **Predictive Pathology, Guiding and Monitoring Therapy** – indicates the future role of pathology as a strong partner for the different clinical specialties. The scientific program will include science, translational research and clinical application to provide delegates with information on recent research findings, new technologies and up to date education. There will be 4 keynote lectures by world-famous speakers and several special sessions by the ESP, the German Society of Pathology, and the German Professional Organization of Pathologists. Moreover, the program will include a trainees' session, an IT symposium, a molecular biologists symposium, a technicians' session, and a special session with the Rodger Haggitt Society. Several joint sessions with cooperating societies/associations will be organized as well including: ASCP, Binford-Dammin Society of Infectious Disease Pathologists, ECCO, ESMO, ESP, ICCR, Ophth Society, and UEG.

In addition to providing an interesting scientific and educational program the IAP/ESP 2016 meeting will serve as a get-together for pathologists and scientists from all over the world in a friendly atmosphere.

Cologne is Germany's fourth-largest city, and is the largest city both in the German Federal State of North Rhine-Westphalia and within the Rhine-Ruhr Metropolitan Area, one of the major European metropolitan areas with more than ten million inhabitants. The city is located on both sides of the Rhine River.

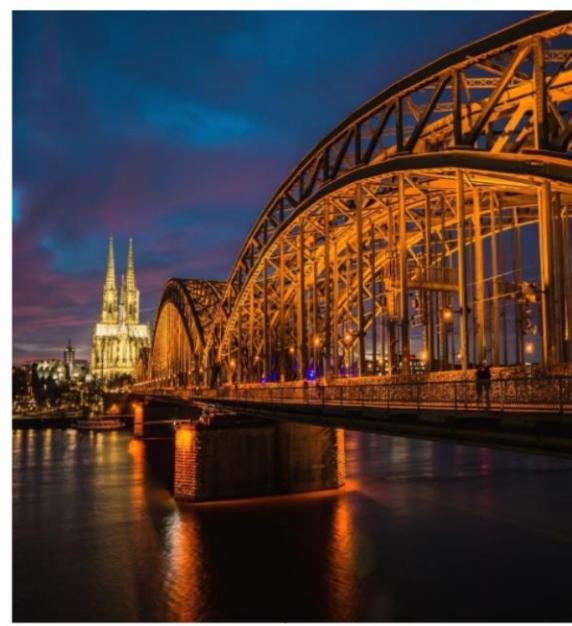


Modern architecture: so-called crane houses in the harbor

Cologne is served by the railway service of the Deutsche Bahn. InterCity and ICE-trains stop at and depart from Köln Hauptbahnhof (Cologne Main Station), Köln Messe/Deutz (in front of the congress venue) and Cologne/Bonn Airport. ICE, TGV and Thalys high-speed trains link Cologne with Amsterdam, Brussels and Paris as well as other German cities.

The Cologne Stadtbahn serves Cologne and a number of neighbouring cities. It also connects the congress venue with the downtown area. In addition to the Stadtbahn service there are frequent buses covering most of the city.

Cologne's international airport is Cologne/Bonn Airport (CGN). The airport is shared with the neighbouring city of Bonn. Other airports in close proximity are Düsseldorf and Frankfurt/Rhein



Night view of the Cologne cathedral and a railway bridge in front

Main. Both airports have frequent train connections with Cologne and the congress venue.

Every year more than 4 Million tourists visit Cologne, mainly because of its famous gothic Cathedral which is the seat of the Catholic Archbishop

of Cologne. It is the city's most famous monument and the Cologne residents' most loved landmark. The construction of the cathedral started in 1248, and it was completed in 1880. In 1996, it was designated a World Heritage site.

Cologne has a large number of universities and colleges and hosts about 72000 students. The University of Cologne is Germany's largest university and one of Europe's oldest universities.

Cologne is a major cultural center; it is home to more than thirty museums and hundreds of galleries. Exhibitions range from local ancient Roman archeological sites to contemporary graphics and sculpture. One of the most fascinating museums is the chocolate museum which was opened by Hans Imhoff on 31 October 1993. The exhibits show the entire history of chocolate, from its beginnings to contemporary products and production methods.

Delegates are cordially invited also to visit the countless bars and restaurants serving the well-known beer, called Kölsch. Actually, the city has the most pubs per capita in Germany.

We are looking very much forward to welcoming you and spending a great time in Cologne.

THE FIRST FIFTY YEARS – CAN YOU HELP US WRITE OUR HISTORY?

By Mr. Andrew Wilson, historian



Do you have a photo of Alfonso Giordano in his lab in Milan in the 1960s that you can share with us? A memory of a truly great slide seminar at one of our Congresses in the 1980s? One of the paper clues from Rudi Heimann's legendary ESP treasure hunts in the 1990s?



ESP's first logo, 1965

The Society was created in 1964, and we've commissioned a professional writer, Andrew Wilson, to create a book about our first half-century. It will focus on the people and events that contributed to making

the Society what it is today. Although the book is now well advanced, we would still welcome your memories or relevant material such as photos, personal letters, and diary entries. If you have such material to share with us, please get in touch before March 11 with Andrew directly at wilsonaf@clara.co.uk. He would love to hear from you.

Here are two excerpts from the book, one from the first chapter about the Society's origins, and the second about one of its best-loved Presidents, the late Christian Nezelof, who died in May 2015 at the age of 93.

A Society is born (from Chapter 1)

On the late January day that Alfonso Giordano sat down to write to a small group of colleagues

ALFONSO GIORDANO



across Europe, the continent was suffering some of the coldest weather in its recorded history. The Big Freeze of 1962-63 had begun in December with heavy snow storms that disrupted

Christmas holiday plans and snarled road traffic in a band from Hungary to the Pyrenees.

Thermometers plunged in the northern countries, with normally navigable rivers and canals freezing over. But instead of letting up after a few

days, the snow and low temperatures had settled in and continued, week after week.

In Milan, where Giordano sat composing his letter at the university's Institute for Anatomy and Histological Pathology, the temperature had fallen to minus-13°C a few nights earlier, and now hovered a few degrees below zero for most of the day. The gregarious, multilingual president of the Italian Society of Pathology had friends and professional acquaintances all over Europe, and reading about the "Big Freeze" in different countries – front-page news on most days that month – he could imagine how the weather was affecting them.

In France, worries about the long bout of unseasonable weather were mounting. Louis Orcel, head of the pathology department at the Beaujon Hospital in Paris, would have been concerned by reported shortages of coal and the inevitable rise in deaths of elderly and vulnerable people.

In London, Robert Scarff would be braving heavy snow and freezing fog as he walked the short distance from "the Savage" – despite the name, a respectable gentleman's club with many eminent members – to the Middlesex Hospital, where he had headed the Bland-Sutton Institute of Pathology since 1931. There was tongue-in-cheek speculation in the newspapers that the UK might involuntarily join Europe if the Channel froze over.

In Hamburg, where Carl Krauspe had run University's Institute of Pathology for 15 years, the great port's transportation facilities had been heavily disrupted due to snow and ice. Worse was yet to come: Krauspe had no way of knowing that within three weeks, a devastating North Sea flood would kill over 300 people and destroy 60,000 homes in the city.

And so it went for the others on his list: Jan Mellgren in Gothenburg, Janusz Groniowski in Warsaw, Pierre Dustin in Brussels...

Giordano was moving ahead on an idea he had been mulling since 1961, the creation of a professional society to bring together European pathologists. Many countries already had national pathological societies, some decades old,

as well as divisions of the International Academy of Pathology (IAP). The profession itself was developing rapidly, fragmenting into a growing list of sub-specialities, and there was a perennial rift between general and diagnostic pathology. Clinical practices and approaches to pathological training varied widely from country to country. Giordano and his colleagues were well aware that other medical specialities such as cardiologists and ophthalmologists had their own European organizations to share information, organize meetings, and represent their professional interests: Wasn't it time for the pathologists?

The idea was one that he was well-qualified professionally and personally to carry out. At the age of fifty-three, he had mixed a solid teaching and research career in Italy with useful international experience. Medicine was strongly rooted in his Sicilian family: his paternal grandfather – also named Alfonso – had alleviated a great deal of suffering when he identified hookworm as the source of crippling anaemia in local miners. Over the years, Giordano had cultivated his network of international connections, particularly with Germany. He had translated a major German pathology text and established a German-Italian Society of Pathology with Carl Krauspe. He also had a link to Belgian pathology; in 1958 the Catholic University of Louvain had awarded him an honorary degree in medicine. And it was from Belgium that a decisive helping hand was offered with organizing the new society.

The help came from Joseph Maisin, a pathologist and cancer specialist at the University of Louvain, who was not only head of the Belgian Society of Anatomical Pathology but also president of Union for International Cancer Control. Giordano later wrote that Maisin "had been the first to offer his support, and I was happy to accept his proposal to hold our first meeting in Brussels." Maisin was a solid figure for Giordano to have in his corner. Born in 1893, he had built up a national and international reputation since the 1920s, not least for his work in radio-therapy and radiology, and was a member of many international commissions

and committees. His work continued after his retirement from the university; when he died in 1971 in a car accident, he was on his way to Lyon to a meeting of the International Agency for Re-



Fig. 2 Founders Meeting of the European Society of Pathology in Brussels on March 30th, 1963:
 1. Dustin (Brussels, Belgium)
 2. Krauspe (Hamburg, F.R.G.)
 3. Scarff (London, U.K.)
 4. Schornagel (Rotterdam, The Netherlands)
 5. Betz (Liege, Belgium)
 6. Maisin (Brussels, Belgium)
 7. Giordano (Milano, Italy)
 8. Orcel (Paris, France)
 9. Mellgren (Malmö, Sweden)

search on Cancer, whose scientific committee he headed. As a venue for the first meeting, Maisin offered the Pathological Anatomy Service at the St Pierre Hospital, which was associated with the Free University of Brussels medical school. Though he would take only a minor role in the future of the Society, Maisin attended that first meeting on 30 March 1963 which Giordano, in the chair, opened at 10am.

A photo exists of the nine men who attended, showing them crowded around a small table. The nine represented an interesting cross-section of European pathology at the time. The north, south, and west were all represented. Eastern Europe was not, although a senior pathologist from the German Democratic Republic sent his regrets; also excused, according to the minutes of that first meeting, were pathologists from Austria, Denmark, Portugal, Norway, and Switzerland. The four largest countries – France, the Federal Republic of Germany, Italy, and the United Kingdom – were at the table, as were Belgium, the Netherlands, and Sweden. There was a mix of heads of institutions, eminent academics, and hospital diagnosticians. There were also two generations present, roughly divided between those born in the Nineteenth Century and those born in the Twentieth. Krauspe, Maisin and Scarff were all

senior figures, soon to retire from the institutions they had headed for years. Two, the Belgian Pierre Dustin and Henk Schornagel of the Netherlands were born in 1914; the youngest, Louis Orcel from the Beaujon Hospital in Paris, was born in 1922.

At first glance, there were plenty of candidates for leadership. The men around the table had a considerable amount of experience with the running of professional societies, and with committee work. Most had led or held executive positions in their national pathological societies; three were current chairmen. Krauspe and Scarff

were important figures in World Health Organization's international reference centres for histological classification of tumour types. But, like Maisin, both Krauspe and Scarff were getting towards the end of their careers, and both represented big

countries. Krauspe in particular would have faced opposition from countries wary of the already powerful influence of Germany on European pathology. Giordano might have been a candidate, as originator of the idea, but he chose to support and influence rather than lead. Betz, Orcel and Schornagel were too junior; Mellgren had the seniority and international experience, but like Giordano preferred to play a supporting role.

So it was the austere, formal Pierre Dustin who emerged as the leader-in-waiting of the new society.

Remembering Christian Nezelof (from Chapter 3)

The 1979 Congress in Valencia featured a full social programme with tours, meals and cultural events that showed the charms of the ancient coastal city to its best advantage. The region's local wines were liberally sampled and many

PIERRE DUSTIN



pathologists got little sleep as they explored the town's relaxed night life – so different to the lifestyle that many of the Northern visitors were used to. A paella party at the Albufera lagoon and nature reserve a short distance from Valencia gave rise to a minor legend about Christian Nezelof's prowess as a bullfighter: people still swear they saw the eminent paediatrician hop a fence to enter a field containing a bull. Years later, Nezelof smiled broadly at the memory, insisting that the bull was a small one and that he'd done little more than pat it on the shoulders. In any case, he said, he had returned unscathed to his plate of paella. Fátima Carneiro fondly remembers both Nezelof's kindness and his subtle sense of humour:

"He was a good friend. He visited Portugal frequently, and contributed an award for the development of paediatric pathology in Portugal.

And he was especially kind to me. Every year at Christmas he would send me a postcard with a sweet message. It would be addressed to "Mme Mouton." That's because my name, "Carneiro" is "mouton" in French – "sheep" in English. Every year, a card to "Mme Mouton" – I am going to miss that very much."



L-R: Christian Nezelof with Paula Borralho and Christine van Haelst at the Madeira Inter-Congress in 2000.

NEXT GENERATION PATHOLOGY

Facts and ideas about the Hungarian Society of Pathology

By Prof. Janina Kulka,

President, Hungarian Division of the IAP

Prof. Gábor Méhes,

President, the Hungarian Society of Pathology



The Origins



The long history of the Hungarian Society of Pathology (HSP) started in the early 1930s. Specifically, the HSP was founded in 1932 and has remained a most active scientific society ever since. A Cancer Research Section was founded as early as 1934 following the inspiration of Ödön

Krompecher (1870-1926), a widely known Hungarian pathologist who first described basal cell carcinoma of the skin. Also to be remembered is György Gömöri's farewell talk about argyrophilic staining of connective tissue fibres in the first annual congress held outside Budapest (in Pécs), just before leaving Hungary forever. World War II reached Hungary in 1944 and interrupted the yearly series of HSP meetings, which were re-started in 1947.

The next historic upheaval altering the society's activities was the 1956 revolution, after which regular yearly conferences were re-established in

1958. International participation and guest lecturers were allowed in 1966 under the HSP presidency of Harry Jellinek, whose efforts to open scientific borders to Europe and beyond were many. As a result, the European Society of Pathology (ESP) held its congress in Budapest in 1973, the opportunity to become individual members of the International Academy of Pathology (IAP) became available to Hungarian pathologists, and the IAP post-congress meeting was held in Budapest in 1980. Ever since, national slide seminars have been regularly organised and have remained the best attended surgical pathology postgraduate education event in the country. Thanks to Professor Anna Kádár's tireless work and international relations, the IAP congress was hosted by Budapest in 1996, giving a huge impetus to Hungarian pathology. The foundation of the Baló Memorial Medal (in memory of Professor József Baló, discoverer of concentric sclerosis of the central nervous system, also known as Baló disease) was followed by the foundation of the Romhányi Memorial Medal commemorating Professor György Romhányi, a great teacher and scientist working on polarization microscopy and amyloid research.

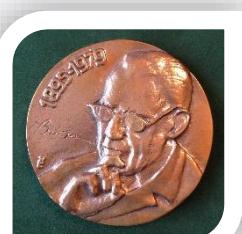
The HSP, together with the IAP Hungarian Division, co-founded the Harry Jellinek Memorial Medal, which is presented biennially for outstanding achievements in the vascular research field. In alternate years the medal is awarded to an undergraduate student, PhD student, or resident for her/his outstanding scientific work.



Baló Memorial Medal



Romhányi Memorial Medal



Harry Jellinek Memorial
Medal



The Hungarian President Judit Bedekovics, representative in the ESP Council, receives the Harry Jellinek Award from Professor Zsuzsa Schaff.

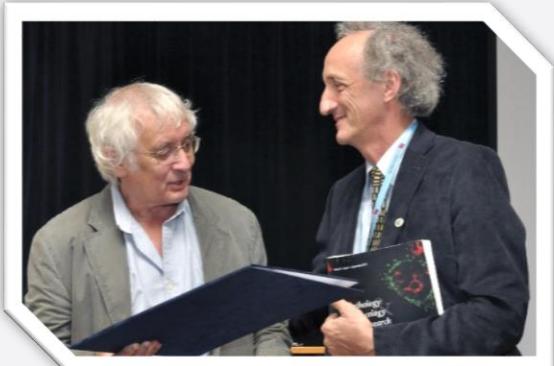
On the other hand, the Pro Pathology Award is presented as an acknowledgement to non-pathologists who have distinguished themselves by their support of the Hungarian pathologists' community.



Professor András Matolcsy hands over the Pro Pathologia Award to Professor Béla Molnár, director of 3DHistech.

From the mid-1990s onwards, despite the high quality training and scientific standards of the country, the search for better salaries and general working conditions have caused the drain of Hungarian pathologists towards Western and Northern European institutions. This steady flow is strongly driven by the undermanned pathology departments of the target countries. As a positive side effect, the high professional level of these

specialists trained in Hungary has further contributed to spread the international reputation of Hungarian pathology.



Professors László Kopper and József Tímár receive the *Pro Pathologia* Award on behalf of the POR Journal.

The Present

Today, similarly to earlier times, HSP endeavours cover a very wide spectrum of diagnostic, educational and scientific aspects of pathology. The HSP works in close collaboration with the Pathology Council of the State Secretary College, the Postgraduate Education Centre, and several related scientific organisations and societies, including the Hungarian Division of the IAP.



The HSP has several special sections and working groups (WGs), the most recent ones being the Digital Pathology WG and the Molecular Diagnostic Pathology WG, both active since 2015. The Section of Cytopathology has proved very active through the organisation of a variety of cytopathology conferences and quality assurance rounds. The Union of Pathology Technicians of Hungary (PAME), a lively organisation with its own meetings and training courses, was founded by pathology technicians in 1998. PAME also organises a separate scientific section at HSP congresses.

Together with other laboratory-based scientific societies (Microbiology, Haematology, Immunology, and Laboratory Diagnostics), the HSP co-founded an external quality assurance company



Three "pathologists' trees" were planted during the 70th HSP Congress in 2011. The one shown was planted by the youngest congress participant.

(QualiCont Ltd) in 1996. QualiCont provides quality assurance rounds in histotechnology and immunohistochemistry to pathology laboratories. As its main scientific event, the HSP organises a biennial congress. Each congress is held in a different region of the country and the latest took place in Hajdúszoboszló in September 2015.

The Hajdúszoboszló congress hosted over 250 members and visitors, offered 55 oral and 45 poster presentations, and harboured 23 industrial exhibitions.

Also worth mentioning is the Meeting of Young Pathologists (FiPAT), which is organised every two years. At the FiPAT young pathologists present their work in scientific and clinical sessions and share leisure activities with senior pathologists.

The official website of the society (www.pathology.hu) is an open forum for specialists and also publishes news and professional material from the IAP Hungarian Division and the Hungarian College of Pathology.

Several HSP members (Professors L. Kopper and J. Tímár, both former HSP presidents, and Dr. Zsolt Orosz) founded the Journal of Pathology, Oncology, and Research (POR) in 1995. Their intention was to provide a tool facilitating international diffusion of the work of Hungarian and Central-Eastern European researchers. Nowadays

POR publishes papers from all over the world and enjoys an increasing impact factor (IF 1.855 for 2014).

The HSP was among the first societies to join the Pannonia congress initiative, a regional collaboration of the Austrian, Czech, Croatian, Hungarian, Slovakian and Slovenian societies. Accordingly, the HSP hosted the 2nd Pannonia Congress of Pathology in 2012, the year of our society's 80th anniversary.



80th anniversary of the Hungarian Society of Pathology during the 2nd Pannonia Congress of Pathology in Siófok, Hungary. Andreas Chott (Austria), Gabrijela Kocjan (UK), Thomas Krausz (USA), Janina Kulka (Hungary).

The links between the ESP and the HSP, one of the national pathology societies with a collective ESP membership, became even tighter in recent years. Quite instrumental in this regard was the election of Professor Janina Kulka as member of the ESP Council for the period 2011-2015. Recently, she became ESP Advisory Council member for the next 4 years, in substitution of Professor József Tímár. Following several proposals to host the European Congress of Pathology in Budapest, the HSP still hopes to get that honour and be able to welcome the European pathologists' community in the near future.

Finally, this early summer an ESCoP Breast Course will be hosted by the HSP in Budapest on 2-4 June 2016. Information is available at <http://pathology.hu/en/escop2016>.

Next Generation Pathology in Hungary

The HSP is actively confronting the field's numerous new challenges. First, a continuous high quality supply of new generations of diagnostic surgical pathologists and technical staff should be guaranteed. That supply can be facilitated providing appropriate guidance to students, so that they feel the urge to become our young colleagues. Much needed subspecialisation in the various branches of pathology should be further enabled by the release of the corresponding licences (haematopathology, neuropathology, nephropathology, etc.). Collaboration and team work with clinical partners and societies is being intensified with joint meetings, among others. Support for the newest technologies, including automation, digital consultation and reporting, are increasingly provided. In this context, HSP members did a pioneer work when introducing digital online slide presentations as early as 2009. Problems and solutions related DNA sequencing and gene expression-based testing, both for routine and scientific applications, are successfully dealt with at HSP meetings and training courses. With HSP support, the molecular pathology diagnostic network of Hungary is spreading from institutions with a long cancer diagnostic tradition to the whole of the country. The promising intellectual capacity of young Hungarian pathologists permits us to face the future with confidence and leaves the sky (and financial resources) as the only limit.

ASSOCIATION FOR EUROPEAN CARDIOVASCULAR SOCIETY

*By Ivana Kholová,
AECVP Membership Committee Chair*



The European Association for Cardiovascular Pathology (AECVP) was founded in 2001 in Amsterdam where it developed from the European School for Cardiovascular Pathology, which started in 1994. At the moment, we have 143

members mainly from Europe, but including some from Australia, Asia and the Americas.

The AECVP brings together pathologists, forensic pathologists and cardiologists actively involved in cardiovascular pathology. It serves as a platform for liaison between pathologists, cardiologists and surgeons as well as basic researchers in the field of cardiovascular diseases. Working with the North American based Society for Cardiovascular Pathology we have issued various guideline documents on processing samples, education and terminology. The most recent of these are on inflammatory and degenerative diseases of the aorta.

The AECVP developed a close liaison with the European Society of Pathology (ESP) and is now a companion society, participating in the annual European Congress of Pathology meetings to provide the cardiovascular pathology program.

The AECVP itself organizes biennial meetings. The first of these was held in October 2004, in Padua.



1st AECVP Biennial Meeting was held in Padua, Italy in 2004. Past President and founder member of the AECVP, Prof. Gaetano Thiene, shows congress participants the historical facilities of the University of Padua.

The next one will be held 23-24 September 2016 in Cologne, preceding the joint meeting of the ESP and IAP. Prof. Robert Anderson has been invited to give the AECVP Michael Davies Distinguished Achievement Award Lecture.

Next year AECVP will also participate in the International Academy of Legal Medicine meeting in Venice in June with a workshop on "complications vs errors in interventional cardiology and cardiac surgery", a session on the autopsy pathology of sudden cardiac death and a live video demonstration of cardiac dissection

(<http://www.ialm2016venice.org>).

AECVP membership offers great opportunities for networking with other colleagues involved and interested in cardiovascular pathology. Please visit our website for more information:

<http://www.aecvp.org/>

ANALECTA MEDICA

By Dr. Loukas Kaklamanis



Evidence for human transmission of amyloid-β pathology and cerebral amyloid angiopathy

Z. Jaunmuktane, S. Mead, M. Ellis et al.

Nature 2015 ; 525 : 247-250

More than two hundred individuals developed Creutzfeldt–Jakob disease (CJD) worldwide as a result of treatment, typically in childhood, with human cadaveric pituitary-derived growth hormone contaminated with prions. Although such treatment ceased in 1985, iatrogenic CJD (iCJD) continues to emerge because of the prolonged incubation periods seen in human prion infections. Unexpectedly, in an autopsy study of eight individuals with iCJD, aged 36–51 years, in four we found moderate to severe grey matter and vascular amyloid-β (Aβ) pathology. The Aβ deposition

in the grey matter was typical of that seen in Alzheimer's disease and A β in the blood vessel walls was characteristic of cerebral amyloid angiopathy³ and did not co-localize with prion protein deposition. None of these patients had pathogenic mutations, *APOE* ϵ 4 or other high-risk alleles⁴ associated with early-onset Alzheimer's disease. Examination of a series of 116 patients with other prion diseases from a prospective observational cohort study showed minimal or no A β pathology in cases of similar age range, or a decade older, without *APOE* ϵ 4 risk alleles. We also analysed pituitary glands from individuals with A β pathology and found marked A β deposition in multiple cases. Experimental seeding of A β pathology has been previously demonstrated in primates and transgenic mice by central nervous system or peripheral inoculation with Alzheimer's disease brain homogenate. The marked deposition of parenchymal and vascular A β in these relatively young patients with iCJD, in contrast with other prion disease patients and population controls, is consistent with iatrogenic transmission of A β pathology in addition to CJD and suggests that healthy exposed individuals may also be at risk of iatrogenic Alzheimer's disease and cerebral amyloid angiopathy. These findings should also prompt investigation of whether other known iatrogenic routes of prion transmission may also be relevant to A β and other proteopathic seeds associated with neurodegenerative and other human diseases.

Integration of copy number and transcriptomics provides risk stratification in prostate cancer: A discovery and validation cohort, study

H. Ross-Adams, A.D. Lamb, M.J. Dunning, et al.
EBioMedicine. 2015 Sep; 2(9): 1133–1144.

Understanding the heterogeneous genotypes and phenotypes of prostate cancer is fundamental to improving the way we treat this disease. As yet, there are no validated descriptions of prostate cancer subgroups derived from integrated genomics linked with clinical outcome.

Methods

In a study of 482 tumour, benign and germline samples from 259 men with primary prostate cancer, we used integrative analysis of copy number alterations (CNA) and array transcriptomics to identify genomic loci that affect expression levels of mRNA in an expression quantitative trait loci (eQTL) approach, to stratify patients into subgroups that we then associated with future clinical behaviour, and compared with either CNA or transcriptomics alone.

Findings

We identified five separate patient subgroups with distinct genomic alterations and expression profiles based on 100 discriminating genes in our separate discovery and validation sets of 125 and 103 men. These subgroups were able to consistently predict biochemical relapse ($p = 0.0017$ and $p = 0.016$ respectively) and were further validated in a third cohort with long-term follow-up ($p = 0.027$). We show the relative contributions of gene expression and copy number data on phenotype, and demonstrate the improved power gained from integrative analyses. We confirm alterations in six genes previously associated with prostate cancer (*MAP3K7*, *MELK*, *RCBTB2*, *ELAC2*, *TPD52*, *ZBTB4*), and also identify 94 genes not previously linked to prostate cancer progression that would not have been detected using either transcript or copy number data alone. We confirm a number of previously published molecular changes associated with high risk disease, including *MYC* amplification, and *NKX3-1*, *RB1* and *PTEN* deletions, as well as over-expression of *PCA3* and *AMACR*, and loss of *MSMB* in tumour tissue. A subset of the 100 genes outperforms established clinical predictors of poor prognosis (PSA, Gleason score), as well as previously published gene signatures ($p = 0.0001$). We further show how our molecular profiles can be used for the early detection of aggressive cases in a clinical setting, and inform treatment decisions.

Interpretation

For the first time in prostate cancer this study demonstrates the importance of integrated genomic analyses incorporating both benign and tumour tissue data in identifying molecular alterations leading to the generation of robust gene sets that are predictive of clinical outcome in independent patient cohorts

Somatic mutation in single human neurons tracks developmental and transcriptional history

M.A. Lodato, M.B. Woodworth, S.Lee et al.
Science 2 October 2015: Vol. 350 no. 6256 pp. 94-98

Neurons live for decades in a postmitotic state, their genomes susceptible to DNA damage. Here we survey the landscape of somatic single-nucleotide variants (SNVs) in the human brain. We identified thousands of somatic SNVs by single-cell sequencing of 36 neurons from the cerebral cortex of three normal individuals. Unlike germline and cancer SNVs, which are often caused by errors in DNA replication, neuronal mutations appear to reflect damage during active transcription. Somatic mutations create nested lineage trees, allowing them to be dated relative to developmental landmarks and revealing a polyclonal architecture of the human cerebral cortex. Thus, somatic mutations in the brain represent a durable and ongoing record of neuronal life history, from development through postmitotic function.

Intra-tumor Genetic Heterogeneity in Rectal Cancer

K.M. Hardiman; P.J. Ulitz; R.D. Kuick et al.
Lab Invest. 2016;96(1):4-15.

Colorectal cancer arises in part from the cumulative effects of multiple gene lesions. Recent studies in selected cancer types have revealed significant intra-tumor genetic heterogeneity and highlighted its potential role in disease progression and resistance to therapy. We hypothesized the

existence of significant intra-tumor genetic heterogeneity in rectal cancers involving variations in localized somatic mutations and copy number abnormalities. Two or three spatially disparate regions from each of six rectal tumors were dissected and subjected to the next-generation whole-exome DNA sequencing, Oncoscan SNP arrays, and targeted confirmatory sequencing and analysis. The resulting data were integrated to define subclones using SciClone. Mutant-allele tumor heterogeneity (MATH) scores, mutant allele frequency correlation, and mutation percent concordance were calculated, and copy number analysis including measurement of correlation between samples was performed. Somatic mutations profiles in individual cancers were similar to prior studies, with some variants found in previously reported significantly mutated genes and many patient-specific mutations in each tumor.

Significant intra-tumor heterogeneity was identified in the spatially disparate regions of individual cancers. All tumors had some heterogeneity but the degree of heterogeneity was quite variable in the samples studied. We found that 67–97% of exonic somatic mutations were shared among all regions of an individual's tumor. The SciClone computational method identified 2–8 shared and unshared subclones in the spatially disparate areas in each tumor. MATH scores ranged from 7 to 41. Allele frequency correlation scores ranged from $R^2=0.69-0.96$. Measurements of correlation between samples for copy number changes varied from $R^2=0.74-0.93$. All tumors had some heterogeneity, but the degree was highly variable in the samples studied. The occurrence of significant intra-tumor heterogeneity may allow selected tumors to have a genetic reservoir to draw from in their evolutionary response to therapy and other challenges.

Interim Guidelines for the Evaluation and Testing of Infants with Possible Congenital Zika Virus Infection — United States, 2016

J.E. Staples, E.J. Dziuban, M. Fischer, et al.
CDC Weekly / January 29, 2016 / 65(3); 63–67.

CDC has developed interim guidelines for health care providers in the United States who are caring for infants born to mothers who traveled to or resided in an area with Zika virus transmission during pregnancy. These guidelines include recommendations for the testing and management of these infants. Guidance is subject to change as more information becomes available; the latest information, including answers to commonly asked questions, can be found online (<http://www.cdc.gov/zika>). Pediatric health care providers should work closely with obstetric providers to identify infants whose mothers were potentially infected with Zika virus during pregnancy (based on travel to or residence in an area with Zika virus transmission [<http://wwwnc.cdc.gov/travel/notices>]), and review fetal ultrasounds and maternal testing for Zika virus infection (see *Interim Guidelines for Pregnant Women During a Zika Virus Outbreak**). Zika virus testing is recommended for 1) infants with microcephaly or intracranial calcifications born to women who traveled to or resided in an area with Zika virus transmission while pregnant; or 2) infants born to mothers with positive or inconclusive test results for Zika virus infection. For infants with laboratory evidence of a possible congenital Zika virus infection, additional clinical evaluation and follow-up is recommended. Health care providers should contact their state or territorial health department to facilitate testing. As an arboviral disease, Zika virus disease is a nationally notifiable condition.

Zika virus is a mosquito-borne flavivirus primarily transmitted by *Aedes aegypti* mosquitoes. *Aedes albopictus* mosquitoes also might transmit the virus. *Ae. aegypti* and *Ae. albopictus* mosquitoes are found throughout much of the Region of the Americas, including parts of the United States, and also transmit dengue and chikungunya viruses. Zika virus infections have also been documented through both intrauterine transmission resulting in congenital infection and intrapartum transmission from a viremic mother to her newborn. Zika virus RNA has been detected in breast

milk, but Zika virus transmission through breastfeeding has not been documented.

During outbreaks, humans are the primary host for Zika virus. An estimated 80% of persons infected with Zika virus are asymptomatic. Symptomatic disease generally is mild and characterized by acute onset of fever, maculopapular rash, arthralgia, or nonpurulent conjunctivitis. Symptoms typically last from several days to 1 week. Based on information from previous outbreaks, severe disease requiring hospitalization is uncommon and fatalities are rare. During the current outbreak in Brazil, Zika virus RNA has been identified in specimens (i.e., brain tissue, placenta, and amniotic fluid) from several infants with microcephaly and from fetal losses in women infected with Zika virus during pregnancy. The Brazil Ministry of Health has reported a marked increase from previous years in the number of infants born with microcephaly and intracranial calcifications in 2015, although it is not known how many of these cases are associated with Zika virus infection.

Zika Virus Testing Considerations and Classification. The diagnosis of Zika virus infection is made through molecular and serologic testing (2). This includes reverse transcription-polymerase chain reaction (RT-PCR) for viral RNA, and immunoglobulin (Ig) M ELISA and plaque reduction neutralization test (PRNT) for Zika virus antibodies. Because it is currently not known which type of testing most reliably establishes the diagnosis of congenital infection, CDC recommends both molecular and serologic testing of infants who are being evaluated for evidence of a congenital Zika virus infection. No commercial tests for Zika virus are available; Zika virus testing is performed at CDC and some state and territorial health departments. Health care providers should contact their state or territorial health department to facilitate testing.

Zika virus RT-PCR testing should be performed on serum specimens collected from the umbilical cord or directly from the infant within 2 days of

birth. In addition, cerebrospinal fluid (CSF) obtained for other studies, and frozen and fixed placenta obtained at delivery, should also be tested by RT-PCR. IgM ELISA for Zika virus and dengue virus should be performed on infant serum, infant CSF, and maternal serum; however, results of these assays can be falsely positive because of cross-reacting antibodies. PRNT can be performed to measure virus-specific neutralizing antibodies and to discriminate between cross-reacting antibodies from closely related flaviviruses (e.g., dengue or yellow fever viruses). Finally, immunohistochemical staining to detect Zika virus antigen on fixed placenta and umbilical cord tissues can be considered.

An infant is considered congenitally infected if Zika virus RNA or viral antigen is identified in any of the samples submitted, including testing of amniotic fluid and testing of the placenta or umbilical cord. In addition, Zika virus IgM antibodies with confirmatory neutralizing antibody titers that are ≥ 4 -fold higher than dengue virus neutralizing antibody titers in the infant serum or CSF constitute evidence of a congenital Zika virus infection. If Zika virus neutralizing antibody titers are < 4 -fold higher than dengue, results are considered inconclusive.

Prospective Validation of a 21-Gene Expression Assay in Breast Cancer

J.A. Sparano, R.J. Gray, D.F. Makower, et al.

N Engl J Med 2015; 373:2005-2014

Prior studies with the use of a prospective-retrospective design including archival tumor samples have shown that gene-expression assays provide clinically useful prognostic information. However, a prospectively conducted study in a uniformly treated population provides the highest level of evidence supporting the clinical validity and usefulness of a biomarker.

Methods

We performed a prospective trial involving women with hormone-receptor-positive, human

epidermal growth factor receptor type 2 (HER2)-negative, axillary node-negative breast cancer with tumors of 1.1 to 5.0 cm in the greatest dimension (or 0.6 to 1.0 cm in the greatest dimension and intermediate or high tumor grade) who met established guidelines for the consideration of adjuvant chemotherapy on the basis of clinicopathologic features. A reverse-transcriptase–polymerase-chain-reaction assay of 21 genes was performed on the paraffin-embedded tumor tissue, and the results were used to calculate a score indicating the risk of breast-cancer recurrence; patients were assigned to receive endocrine therapy without chemotherapy if they had a recurrence score of 0 to 10, indicating a very low risk of recurrence (on a scale of 0 to 100, with higher scores indicating a greater risk of recurrence).

Results

Of the 10,253 eligible women enrolled, 1626 women (15.9%) who had a recurrence score of 0 to 10 were assigned to receive endocrine therapy alone without chemotherapy. At 5 years, in this patient population, the rate of invasive disease-free survival was 93.8% (95% confidence interval [CI], 92.4 to 94.9), the rate of freedom from recurrence of breast cancer at a distant site was 99.3% (95% CI, 98.7 to 99.6), the rate of freedom from recurrence of breast cancer at a distant or local-regional site was 98.7% (95% CI, 97.9 to 99.2), and the rate of overall survival was 98.0% (95% CI, 97.1 to 98.6).

Conclusions

Among patients with hormone-receptor-positive, HER2-negative, axillary node-negative breast cancer who met established guidelines for the recommendation of adjuvant chemotherapy on the basis of clinicopathologic features, those with tumors that had a favorable gene-expression profile had very low rates of recurrence at 5 years with endocrine therapy alone. (Funded by the National Cancer Institute and others; ClinicalTrials.gov number.

SOME RECENTLY PUBLISHED BOOKS

By Prof. Gordan Vujanić



Cagle: Lung and Pleural Pathology

Philip Cagle and Timothy Allen

2015, 672 pages, ~€160

Lung and Pleural Pathology goes beyond the scope of traditional pulmonary pathology textbooks by analyzing all of the changing paradigms that are reshaping pulmonary pathology practice. Authored by renowned pulmonary pathologists, it is the one comprehensive, up-to-date pulmonary pathology textbook that covers important new clinical approaches, including new WHO classification of lung cancer; the current status of lung cancer biomarkers; and emerging concepts in lung fibrosis and interstitial lung diseases, which have implications for newer treatments.

Carlson: Salivary Gland Pathology: Diagnosis and Management

Eric Carlson and Robert Ord

2015, 496 pages, ~€170

Salivary Gland Pathology: Diagnosis and Management, Second Edition, updates the landmark text in this important discipline within oral and maxillofacial surgery, otolaryngology/head and neck surgery, and general surgery. Written by well-established clinicians, educators, and researchers in oral and maxillofacial surgery, this book brings together information on the etiology, diagnosis, and treatment of all types of salivary gland pathology.

Xiao: Color Atlas and Synopsis: Gastrointestinal Pathology

Shu-Yuan Xiao

2015, 464 pages, 1,000+ illus, ~€100

Designed for pathology residents, established practicing pathologists, and clinicians who need quick access to information on this subdiscipline, this handy, affordable guide features more than 1,000 high-quality, full-color pathology images. It leads readers through the differential diagnosis process and helps them differentiate diseases with overlapping histologic features and render descriptive diagnoses to assist the clinician in providing the best possible patient care.

Aydiner: Breast Disease

Adnan Aydiner, Abdullah Igci and Atilla Soran

2015, 298 pages, 39 illus, ~€140

This first of two volumes provides and in-depth account of breast disease characteristics, imaging and diagnosis. Covering from breast anatomy and tumor biology to benign and malignant lesions this is an indispensable companion for breast specialists, medical oncologists, radiologists and pathologists. The book is organised in themed parts exploring topics such as epidemiology, risk factors, genetic biomarkers, pathological evaluation of tumors and biopsy techniques.

Greenspan: Radiology and Pathology Correlation of Bone Tumors

Adam Greenspan, and Dariusz Borys

2015, 456 pages, ~€150

Confidently diagnose challenging musculoskeletal lesions with expert guidance. Radiology and Pathology Correlation of Bone Tumors: A Quick Reference and Review is a practical, hands-on clinical reference that helps you evaluate all of the diagnostic clues at your disposal to accurately identify the most frequently encountered benign and malignant bone tumors. Co-written by a radiologist and a pathologist, it shows you how to correlate radiography, scintigraphy, CT, MRI, PET, and PET-CT with gross pathology, histopathology, immunohistochemistry, and genetics to achieve maximum diagnostic certainty. This compact, high-yield resource is an ideal tool for quick look-ups in everyday practice as well as board review.

Holladay: Cytopathology Review Guide

E. Blair Holladay

2015 (4th ed), 400 pages, ~€150

Since its original publication in 1998, the best-selling Cytopathology Review Guide has prepared thousands of individuals to successfully pass their board examinations. The new 4th Edition now brings significant additions and updates, keeping pace with a rapidly evolving field: Significantly expanded in all areas of diagnostic cytopathology New and enhanced committee-vetted study questions and images Cutting-edge chapter added on molecular tumor markers, molecular diagnostics, and theranostics.

Rosenthal: The Paris System for Reporting Urinary Cytology

Dorothy Rosenthal, Eva Wojcik and Daniel Kurtycz

2015, 220 pages, 4 illus, ~€88

This book describes a novel and proven approach to cytologically classify urinary samples for the detection of bladder cancer and lesions of the upper urinary tract. The new method is based on the collective experience of knowledgeable cytopathologists who have tested the terminology within their own laboratories for reproducibility and predictability of neoplasms of the urinary tract.

Sharma: Esophageal Cancer and Barrett's Esophagus

Prateek Sharma, Richard Sampliner and David Ilson

2015, 304 pages, ~€110

Esophageal Cancer and Barrett's Esophagus 3E will focus on these two common and key conditions that affect the esophagus, providing expert guidance to their pathogenesis, cause, prevention, diagnosis and clinical management. Top international names in the field will examine each of the many issues involved using the very latest evidence-based research, and clear, didactic advice will allow the reader to understand the best methods of diagnosis and clinical management of each condition - whether early or late stage.

Stockman: Diagnostic Pathology: Vascular

David Stockman

2015, 704 pages, ~€260

Diagnostic Pathology: Vascular offers a specific focus on vascular pathology, making it ideal for the practicing pathologist, dermatopathologist, dermatologist, pediatrician, or trainee. This easy-to-use, comprehensive reference book takes a multidisciplinary approach to diagnosis and boasts superior medical images - including clinical photographs, radiology, gross pathology, and a wealth of histologic images - for a wide variety of rare entities. This is your essential guide to understanding vascular pathology and diagnosis!

Wagh: Pancreatic Masses: Advances in Diagnosis and Therapy

Mihir Wagh and Peter Draganov

2015, 336 pages, 76 illus, ~€110

This volume provides a comprehensive, state-of-the art review of the management of pancreatic lesions. The book reviews the differential diagnosis and pathology of different pancreatic lesions, profiles new advances in endoscopic evaluation, highlights new perspectives about imaging modalities, describes current treatment strategies and provides an algorithmic approach to management of pancreatic tumors.

Wallace: Practical Atlas of Transplant Pathology

W. Dean Wallace and Bita Naini

2015, 196 pages, 2 illus, ~€180

This atlas describes and illustrates the pathology of solid organ transplants and includes chapters covering transplant pathology of the kidney, lung, heart, liver, pancreas, small bowel and limbs. Each of these chapters briefly reviews the latest rejection classifications for each organ system with explanatory notes highlighting diagnostic criteria, and tables listing entities in the differential diagnosis. Included with each chapter are images demonstrating the pathology of the most common and important diseases, especially patterns of organ rejection and related entities or mimickers.

Bault: The Normal and Pathological Fetal Brain

Jean-Philippe Bault and Laurence Loeuillet

2015, 313 pages, 28 illus, ~€180

This book provides assistance in preparing for and conducting screening or diagnostic ultrasound examinations of the fetal brain in all stages of pregnancy. Readers are provided with: abundantly illustrated descriptions of studies conducted on normal brain structures using all conventional and 3D/4D ultrasound techniques; a detailed description of the main structures of the brain; photographs of fetal pathology specimens that may be used to compare the results of imaging techniques with the anatomical reality; and practical advice and technical tips. The second part of this book presents a clear and informative overview of fetal brain pathologies, combining a wealth of detailed images and precise descriptions.

Burke: Tumors of the Heart and Great Vessels (Vol 22)

Allen Burke, Fabio Tavora, Joseph J. Maleszewski, and Aletta Ann Frazier

2015, ~€160

Since the publication of the Third Series atlas on heart tumors, there have been several changes in the pathology and classification of these lesions. The current edition updates the status of heart tumors, with emphasis on newer findings, especially molecular advances. In most cases, the authors have followed the classification of the World Health Organization, whose updated volume on tumors of the lung, heart, and mediastinum is forthcoming. Because newer imaging modalities, especially cardiac magnetic resonance imaging and 3-D echocardiography are increasingly utilized in preoperative evaluation of heart tumors, the authors have introduced a chapter devoted exclusively to radiologic diagnosis.

Kaplan: Digital Pathology: Historical Perspectives, Current Concepts and Future Applications

Keith Kaplan and Luigi K.F. Rao

2015, 132 pages, ~€100

Digital Pathology: Historical Perspectives, Current Concepts & Future Applications provides the authoritative text in the digital pathology domain by combining the established expertise of leaders in this diverse arena with practical applications of

this transformative platform while harnessing a content rich, interactive format. In detailing a cohesive narrative from a broad, global perspective the lessons learned from the past, the obstacles to digital pathology adoption that have been overcome and the challenges that remain for full realization of the potential that computational analysis affords, this text provides readers with the latest in where the field is heading as it seeks to unlock the potential of digital pathology by leveraging cutting edge technologies and innovative tools.

**FORTHCOMING MEETINGS IN
2016**

By Prof. Gordan Vujanić



The British Neuropathological Society 117th Meeting

British Neuropathological Society

2 – 4 March 2016

London, United Kingdom

International Society of Dermatopathology (ISDP) 19th Joint Meeting

2 – 3 March 2016

Arlington, USA

International Academy of Pathology – German Division

4 – 6 March 2016

Bonn, Germany

**Society for Pediatric Pathology Spring Meeting
2016**

11 - 13 March 2016
Seattle, USA

USCAP: 105th Annual Meeting 2016

United States & Canadian Academy of Pathology
(USCAP)
12 - 18 March 2016
Seattle, USA

USCAP: Gastrointestinal Lymphomas

2 – 3 April 2016
Palm Spring, USA

ESP: EScop Courses in Pathology: Update in Respiratory Pathology

European Society of Pathology
8 – 9 April 2016
Belgrade, Serbia

ASCP: Molecular Surgical Pathology for the Practicing Pathologist

11 – 13 April 2016
Miami, USA

15th Congress of Serbian Pathologists and Cytologists Association with International Participation

21 – 23 April 2016
Zlatibor, Serbia

ASH: Highlights in Latin America

American Society of Hematology
29 – 30 April 2016
Natal, Brazil

IAP-AD: 4th Pannonian Congress of Pathology 2016

International Academy of Pathology – Austrian Division (IAP-AD)
12 – 14 May 2016
Osijek, Croatia

German Society of Pathology (DGP) DGP: 100th Congress of the German Society of Pathology

19 - 21 May 2016
Berlin, Germany

DGP: 13th European Congress on Digital Pathology

German Society of Pathology (DGP)
25 – 28 May 2016
Berlin, Germany

9th Joint Meeting of the British Division of the IAP and the Pathological Society

Pathological Society (PathSoc)
28 – 30 June 2016
Nottingham, United Kingdom

2nd Macedonian Congress of Pathology with International Participation

September 1-4, 2016
Ohrid, FYROM

IV Congress of the Cuban Division of the International Academy of Pathology and XIV Congress of the Cuban Society of Anatomic Pathology

14 – 18 November 2016
Havana, Cuba

