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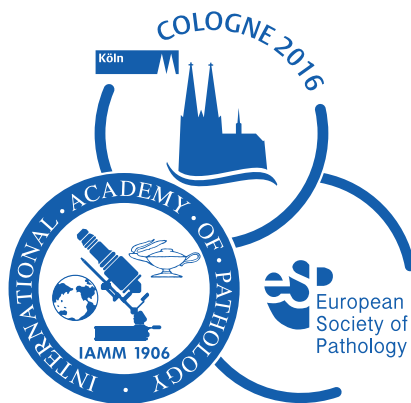
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A NEWS BULLETIN

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Pathology in Germany

Cologne is the host city of the International Congress of the IAP Sept 26-30, 2016. The motto for the Congress is 'Predictive Pathology - Guiding and Monitoring Therapy'

The Institute for Pathology in Cologne epitomises this motto. The current Head of the Institute is Professor Reinhard Buttner. His Institute is responsible for a busy routine Anatomical Pathology Service with about 40,000 surgical specimens and 20,000 consultations each year, and a post mortem service that has 150 postmortems annually. (As is happening elsewhere in the world this number is falling rapidly.) The University enrolls 700 undergraduate medical students in each year of a 6 year course and the staff play a part in this teaching.

On top of this the Institute has a very busy Research programme. This Research Team was one of the first to provide next generation sequencing of DNA and RNA in routine diagnostic surgical pathology. They are concentrating on lung tumours looking for molecular alterations - mutations, translocations and amplifications in a number of genes in the tumour cells.

These mutated genes are called 'driver mutations.' The team is trying to see whether the various varieties of lung tumour that can be identified in H&E sections, have specific patterns of 'driver mutations.' Pharmaceutical companies are keen to find such 'driver mutations' so that they can try to manufacture specific chemotherapeutic agents with which to treat the tumours. This is aiming to produce 'personalised' therapy for patients with these tumours.

Commercially these tests would cost about \$7,000 but because the Pharmaceutical companies are funding the research, the tests are presently free to patients.

The Institute employs 17 staff pathologists and 21 pathology trainees and PhD scientists.

Cologne University and Medical School

The University and the Hospital were established in 1388 but the University was abolished in 1798 and re-established in 1919 when Konrad Adenauer was Mayor of the city. The Faculty of Medicine was one of the original Faculties.

The present hospital has 1400 beds. Like the Insti



tute for Pathology, all the departments are engaged in service, teaching and research.

There are a number of historical memorabilia exhibited at the entrance to the Hospital and on the walls of the ground floor corridor of the hospital.

At the entrance there is a bronze bust of Albertus Major (1193-1280). He was a very distinguished scholar and teacher and a member of the Dominican order of Monks. His monastery occupied the site of the present hospital.

There is a photo of an early pathology laboratory in the hospital.

At the entrance to the student lecture theatre there are a few old pathology specimens, some of which demonstrate the gross effects of tuberculosis before the introduction of Streptomycin which produced 'magical' results in the treatment of this highly infectious disease.

Robin Cooke and Reinhard Buttner



Albertus Magnus (1193-1280) the Abbot in charge of the Dominican Monastery and the surrounding property on which the first hospital was built.



Cologne convention centre.



Left: Dr. Maike Witterfheim is demonstrating FISH screening to try to find an abnormal chromosome to sequence.

Left below: Samples from 16 tumours are then loaded into the cartridge of the PCR sequencing machine.

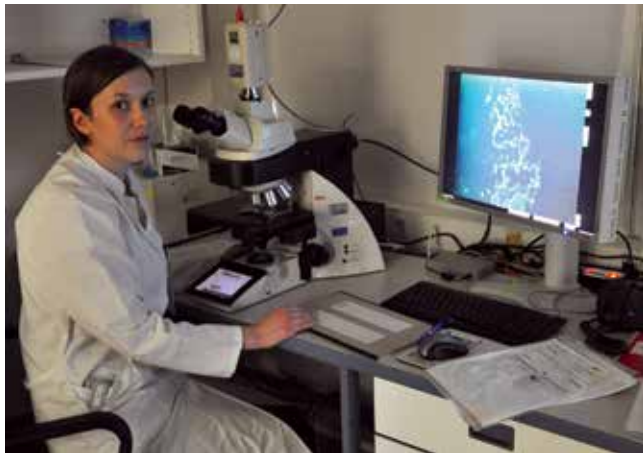
Right: Cologne Main entrance to the University Hospital

Right: The machine and the high capacity computer are kept in a cold room because each reading consists of many gigabites. (note the warm clothes of the scientist).

Below: Cologne, Institute of Pathology in the centre (the red painted building) between the heart clinic and the main hospital.



Peter Joseph Frub, Colner Hofnau top floor dining room with view of Cathedral.



Koln main hospital laboratory



Below: Reinhard Buttner, Sigurd Lax, Bruce Smoller, Martina Schmidt, Thomas Rudiger.



Federal Pathologic-Anatomical Museum, Vienna

This museum now comes under the jurisdiction of the Department of Anthropology and it is called a Collection.

Historical background

The Vienna General Hospital dates from 1686, but it was not until 1784 under the influence of Emperor Joseph II, that it became a proper hospital with 'wards' for different categories of patients. A separate round, fortress like building for housing violent psychiatric patients called the Narrenturm was opened towards the back of the General Hospital in the same year. This hospital became a centre for service, teaching and research in the Medical School of Vienna which occupied a preeminent position in the middle of the 1800s.

The Frenchman, Rene Laennec (1781-1826) is best known for his invention of the stethoscope. However, he used to perform autopsies on his deceased patients and he demonstrated the usefulness of correlating the clinical findings with the autopsy findings.

This method of clinico-pathological correlation of disease was brought to perfection by the clinician Joseph Skoda (1805-1881) and the pathologist Carl Rokitansky (1804-1878) in the Medical School of Vienna, in Austria. The results of this partnership established Vienna as the leading medical centre in the world in the middle of the nineteenth century.

The Medical school of Vienna revolved around Rokitansky's post mortem room. Skoda and his students made careful clinical examinations of their patients and kept follow-up records. Every day they attended the post mortems, where the macroscopic features of the diseased organs were correlated with the clinical features elicited in the wards. Regular bulletins of these new findings were reported and they caused such interest that the Medical School quickly became famous. This approach established the model on which scientific medicine was taught in the late 1800s and throughout the 20th century.

Rokitansky established a pathology museum in which he kept examples of as many diseases as he could find. The specimens were kept in glass containers sealed with a glass lid. Ultimately they were housed in the 139 cells that were made for inmates of the Narrenturm. Many of the barred doors to the rooms have been preserved.

By 2013 the museum has about 50,000 preparations with 25,000 being wet preparations. Active collecting ceased in 1974 but the museum is still taking objects from other museums that are closing.

Samples of some of the exhibits are shown in the accompanying photographs.

The museum also has about 6,000 moulages (Wax models) the majority of which show the clinical features of dermatological diseases, particularly venereal

diseases. The first ones were made by Anton Elfinger who was commissioned by Ferdinand von Hebra who was one of the first dermatologists. However, most of them were made by Carl Henning (1860-1917) and his son Theodore Henning (1897-1946). Carl was recruited by von Hebra's son in law Moritz Kaposi. Carl died suddenly from the effects of a wasp sting and Theodore took over his father's practice. The last moulages were done in 1939.

There were three major centres for Dermatological Wax models in Europe - the Hennings in Vienna, Jules Baretta at the Hopital St. Louis, Paris and Joseph Towne at Guy's Hospital, London. The technique spread from these centres to many other places around the world. Wax dermatological moulages can now be found in Museum collections in many countries.

The present Curator of the Federal Pathologic-



Examples of old specimens that have been restored. The original heavy glass containers have been reused. The specimens are secured by strings attached to glass rods. The glass lid is sealed on after air bubbles have been removed.



Front and back views of one of Rokitansky's postmortems from 1849. The hand written description of the post mortem is added at the top of the photo.

Map of the 1850s hospital in Vienna. The buildings are now used for various administrative offices. The black arrow in area 1 is where the statue of Billroth is situated. The black arrow at the rear of the hospital complex is the Narrenturm.

Far right: Theodor Billroth (1829-1894). He was the leading surgeon in the hey day of the Medical School of Vienna. Behind him is the central pathway that connects the small parks that are surrounded by two storey hospital wards. This pathway leads to the Narrenturm.



Above: The Narrenturm in September 2013. It is undergoing renovations.



Left: Entrance to the Narrenturm with the Curator, Eduard Winter at the door.

Below: Corridor on the ground floor. Renovations are under way. Exhibits can be seen lining the walls of the corridor. There are also exhibits in each of the former 'cells' of the Narrenturm that open from the corridor.

Bottom: Examples of some of the wax models that were done by the Hennings - father, Carl and son, Theodore.



Anatomical Museum, Eduard Winter had a grant in 2013 that allowed him to begin a programme of renovation of the fabric of the Museum and of the museum specimens themselves. He is hoping for an extension of the grant to allow him to finish the renovations.

The Museum is used for teaching medical students but it opens two days a week for visits by members of the public. There is a small admission fee. In 2012 there were 26,000 visitors.

Eduard Winter and Robin Cooke



Two deformed skeletons. Left: fracture of lumbar vertebrae from tuberculosis. Right: an adult with Rickets.



Old specimens waiting to be restored. Note the variety of glass containers. Below: A 19th century Pharmacy



Right: Rokitsansky's post mortem instruments.

Left: Workroom in which the old pots are being restored.

Right: Wax model of a caput medusae in a patient with cirrhosis.

Left: Plaster casts of the skulls of Beethoven, and Schubert.

Left below: Postmortem report on Beethoven in Latin.

Below: Henning moulage.



Medical Museums of the University of Melbourne, Australia

The Faculty of Medicine, Dentistry and Health Sciences at the University of Melbourne has two medical-related museums of cultural and teaching significance - The Harry Brookes Allen Museum of Anatomy and Pathology and the Medical History Museum. Both play an important role in education, engagement and research.

The Medical School was established in 1853, with pathology and anatomy museums created soon after. Harry Brookes Allen (1854-1926), one of the early graduates of the Medical Course, became the Professor of Pathology in 1882. He was a dynamic man and was influential, not only in pathology but also as a governmental administrator and adviser. He left a museum with about 15,000 specimens, which was expanded by subsequent Professors. In 2004 both pathology and anatomy museums were amalgamated.

Pathology and Anatomy

The Harry Brookes Allen Museum of Anatomy and Pathology caters for the teaching of approx. 3000 medical and science students. The anatomy specimens are displayed in association with pathology specimens that relate to them. Guided tours of the museum are also available to secondary school students and health professionals, in addition to a small program of public engagement events. These events have recently included Open House Melbourne and Nite Art, which have attracted large numbers of visitors to the Mmuseum.

The Melbourne Medical History Museum was founded by Professor Kenneth Russell (1911-1987) with a grant from the Wellcome Trust. Since its inception in 1967, the Medical History Museum has developed a diverse and varied collection of over 6,000 items encompassing documents, photographs, artifacts, ceremonial objects, medical and scientific equipment and associated research material.

A major feature of this museum is a Savory and Moore Pharmacy originally located in London at 29 Chapel Street, Belgrave, the

Continued over

Specimens selected for display in the small section of the Museum behind the entry doors for members of the public.



pharmacy operated from 1849 to 1968 and the furniture and fittings were donated to the Medical History Museum in 1971 by The Wellcome Trust. It provides visitors insights into an age before the mass production of pharmaceutical products.

The Medical History Museum has an annual exhibition program encompassing themes linking scientific discovery with society and culture. The current exhibition is Compassion and Courage: Australian Doctors and Dentists in the Great War on until 30 April 2016. Open six days a week, the museum provides the opportunity for students, staff, community groups and the general public to explore the history of medicine.

Professor Robin Cooke, Jacqueline Healy, Senior Curator, Medical History Museum and Ryan Jefferies, Curator, The Harry Brookes Allen Museum of Anatomy and Pathology

<http://museums.mdhs.unimelb.edu.au>



A display of some of the exhibits in the public area of the Museum. Note the wax models against the wall. Some are the work of artists in Melbourne but the arrow marks a wax model made by the Master Modeller from Paris in the mid 1800s, Jules Baretta. This is one of the specimens purchased by the Foundation Professor of Anatomy, Physiology and Pathology, George Halford (1824-1910). He was recruited in the UK and was given 500 pounds to purchase some exhibits that would be useful in teaching when he arrived in Melbourne.



Within the museum there are single study areas provided with computers.



Within the museum there is space for small group teaching and discussion.



Another specimen purchased by Halford from Paris. It is a man with the sirenomalous (mermaid) deformity. He used to earn his living by playing his flute on the steps of churches in Paris.



Above: An anatomical dissection of the abdomen and upper thigh.



Right: An anatomical dissection of the medial aspect of the left ankle and foot.

Above right: A close up of the Baretta moulage of sporotrichosis of the hand with a normal hand for comparison.



Below: A display of renal diseases



Entrance to the Harry Brookes Allen Museum of Anatomy and Pathology



Above: Lungs showing bronchiectasis

Below: An area for group teaching or study.



Museum of Human Disease at the University of New South Wales, Sydney, Australia

UNSW Australia was opened in 1960 and Medicine was one of the original faculties. The first medical students graduated in 1967. A fledgling Pathology Museum of about 500 specimens had been collected by the Anatomical Pathologist at the Prince Henry Hospital that became the teaching hospital of the new medical school. Some specimens were also donated by the much older University of Sydney, and some smaller specialised hospitals. Dr. Grace Higgins was appointed to the full time staff of the School of Pathology in 1969. From then until her retirement in 2000 she was the person mainly responsible for the collection and presentation of the museum specimens.

Collection of specimens ceased in the early 1990s as a result of the world wide press and public campaign aimed at destroying pathology specimens. The Head of Pathology at that time, Prof Denis Wakefield, decided to convert the museum into a teaching facility for the 21st century. It was reorganised and prepared to be able to host visits from members of the public and Science students from Secondary Schools. This venture was well received.

In 1996 the future Head of the School of Medical Sciences, Prof Nick Hawkins, received a national learning and teaching grant that allowed him to employ a photographer to take 35mm photos of over 2000 specimens. Nick took 35mm microphotographs at low, medium and high magnifications of all the pathological entities in the Museum. He later digitised and enhanced all of these.

He used a relational database to make these and related images available on CDs and called it the IOD (Images of Disease). Prof Gary Velan later set up a website on which he placed interactive versions of some of the images and led the development of an interactive IOD app available for iPhones, iPads and Android devices. Other members of the Department are now adding to this programme.

The Museum recently moved to another location and the internal teaching and outreach programmes have been expanded.

Classes for Medical students and Science students are conducted in an interactive and informal manner. The topics are centred around pots that demonstrate some aspects of pathology. The real pathology is backed up by iPad and web-based resources.

Displays in the form of specimen pots, posters as well as Museum tours on iPads have been made with a view to teaching members of the public about 'lifestyle' induced diseases.

As in many types of museums an audio programme allows visitors to have a self directed tour.

Volunteers were recruited by Denis Wakefield when he first reorganised the museum. They were mainly retired doctors, scientists and others. Now the volunteers are mainly medical students who use the opportunity to improve their knowledge of pathology but also to hone their communication skills.

There is a regular maintenance programme for the specimens with dusting and replacing fixative solutions that tend to go yellow after a few years of standing. Staff are continually looking for different ways to use the museum material to make the teaching relevant and interesting in the 21st century.

Robin Cooke, Simone Van Es, Gary Velan, Nick Hawkins, Derek Williamson, Bridget Murphy, Grace Higgins and Denis Wakefield.



Prof Gary Velan demonstrating a specimen while volunteer students access the online teaching material composed by the professional staff.



Senior lecturer, Simone Van Es demonstrates a lecture theatre. She was responsible for designing some of the 'life style' displays.



A demonstration of 'life style' diseases for members of the public and for Senior Science school students.



A display of historical implements, mainly laboratory equipment.



Prof. Gary Velan demonstrating the arrangement of specimens in organ systems.



A demonstration of 'life style' diseases for members of the public and for Senior Science school students.

Report from the Indonesian Division

The 18th National Congress and Annual Scientific Meeting of Indonesian Association of Pathologists in conjunction with Asia Pacific Society for Molecular Immunohistology (APSMI) Annual Meeting, November 20th-22nd, 2015, Yogyakarta, Indonesia.

There were 506 delegates and 16 speakers from overseas - Japan 7, Pakistan 2, and one from each of Saudi Arabia, Netherlands, USA, Singapore, Hong Kong, Vietnam, Australia.

There were 43 oral presentations and 126 posters from Indonesian pathologists.

Information and photographs supplied by Ery Kus Dwianingsih, Secretary of the Congress Committee and Samir Amr, Past President of the IAP.

Right: Members of the organising committee



Some of the speakers

