



Oslo University Hospital – Ullevål, Department for Pathology
Chair of the center: Dagmar Klotz MD
Head of Perinatal Pathology: Gitta Turowski MD PhD
Head of the training program: Gitta Turowski (Dagmar Klotz, Anton Baysa)

Introduction: Oslo University Hospital (OUS) is the biggest hospital in Norway, offering comprehensive healthcare services across all medical and surgical specialities, tightly associated with the Medical Faculty of the University of Oslo. The OUS is a merging product of three hospitals (Ullevål, Riks - and Radiumhospitalet). The Department of Pathology at OUS is divided into three sections, which are located with different tasks in these three hospitals.

In total, 62 consultant pathologists, 22 residents, 60 bioengineers, and secretaries are part of the staff, partly associated with the Faculty of Medicine, University of Oslo, performing teaching and research.

The overall head of the Pathology Department is Bodil Bjerkehagen. Additionally, each pathology department has its local head, like Dagmar Klotz at the Ullevål Hospital.

One of sub-specialities at the Ullevål Hospital is the Group for Perinatal Pathology, focusing on fetal autopsies, placenta, and pregnancy products of the first trimester.

Diagnostic material is sent from local obstetricians at Ullevål and Rikshospitalet (in total ca. 9000 deliveries each year), other regional hospitals, Akershus University Hospital (Lørenskog), Kalnæs (Fredrikstad), as well as from private practices and ambulatory centres all across the region, additionally to external consultation cases. On special cases of perinatal deaths, collaboration with our Department of Forensic Medicine, located at the Rikshospitalet is warranted.

In figures, around 300 fetal autopsies and related placentas, 20% placentas from all deliveries and around 700 early pregnancy products are processed annually according to international guidelines.

Biopsies from children up to 16 years of age, such as gastric specimens, like Hirschsprung disease, benign testicular lesions, etc. are part of the Ullevål diagnostic material, while samples from pediatric tumors are covered by the Soft Tissue Sub-speciality Group at the Radiumhospitalet.

Cases of gestational trophoblastic disease are diagnosed in collaboration with the leader of the Gynecology Pathology Group Ben Davidson, and Olesya Solheim from the Clinical Gynecology Oncology Department, Radiumhospitalet, OUS.

Background: Activities in perinatal diagnostics started with Borghild Roald and Aage Erichsen in 2003. I myself (Gitta Turowski) was admitted in 2007 from Haukeland University Hospital in Bergen (HUS) after having published an online manual on placental diagnostics, based on my training with Prof. Dr. Vogel and Dr. Sarioglu in Berlin in 2000.

We launched Perinatal Pathology in Norway, and were registered for first time as Sub-speciality Group for Perinatal Pathology into the Norwegian Pathology Association in 2010 (DNP).

Perinatal Pathology Group at Ullevål Hospital consisted at that time of three consultants, one resident and two technicians (one for routine diagnostics, one for research). We standardized procedures according



internationally published guidelines, suggested a unified placental classification in 2016, which the Amsterdam Placenta Workshop Consensus Meeting in 2018 based upon. Guidelines for fetal autopsies were unified and published (Sarioglu/Turowski) as well as diagnostic guidelines for Gestational Trophoblastic Diseases were actualized according EOTTD recommendations. In parallel, collaboration with local researchers, e.g. Annetine Staff et al, was started.

Perinatal Sub-speciality Group visited departments with perinatal activities in Stockholm, Copenhagen, Dublin, Berlin, London, Utrecht, to catch up inspiration and to build up international network.

In 2016 I defended my thesis on placental insufficiency and became the head of the Perinatal Group.

Today, our group expanded with another two consultants and one more technician. Three of our consultants are IPPA certificated. Residents join our group after being through basic education in pathology, which in concrete means a minimum of three years, according UEMS recommendations.

Regularly, we keep clinical-pathological meetings, person-in-person in Oslo, or digitally with external hospitals.

We have meetings with neonatal intensive care units, obstetricians, genetics and paediatrics, where interdisciplinary findings are collected and discussed to best patients benefit with focus on follow-up and prevention of recurrence risk and fatal complications.

A register for perinatal samples was established, which formally is a Diagnostic Quality Register, including perinatal samples examined from 2014, meant to link up with other national and international registers for diagnostic and research purposes. To fulfil this aim, our register can easily be transformed into a research database as soon as applications with all requirements are fulfilled and submitted. This register is managed by Anton Baysa (antbay@ous-hf.no). Ongoing research activities include national and international collaborations, e.g. Berlin and Munich, leading to PhD graduations.

Capacity: A training program can be offered for a minimum of two months twice a year. The department can accommodate one position per training slot. Training positions will run between January to July and August to December each year. Due to the demand for attachments from local and overseas trainees, it is required that the slot is arranged with enough anticipation.

Contact address for requesting details by the applicant:

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Accommodation & Documents: The applicant will receive help to find a low cost accommodation nearby the hospital. Support to get the necessary visa, insurance or other documents if required will be provided. After completion of the training period the trainee will receive a detailed certificate describing the work. A letter of invitation for the applicant can be issued if necessary. No fee will be raised for the training program. The Department will not fund the accommodation, or any fees incurred in the visa application or criminal records check if required.