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*Commentary***A short note on branches of pathology****Anitta Mahonen\***

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**DESCRIPTION**

Pathology is the study of the causes and effects of disease or injury. The term pathology also generally refers to the study of diseases, including a wide range of biological research fields and medical practice. However, in the context of modern medical treatment, the term is usually used more narrowly to refer to the processes and tests that belong to the contemporary “general pathology” medical field, which includes many different but interrelated medical specialties that diagnose diseases, mainly by analysing tissue, cell and body fluid samples.

**Forensic pathology** is a pathology that emphasizes on examining the dead body to control the cause of death. A post-mortem is performed by a coroner, usually when exploring criminal and civil cases in certain jurisdictions. Forensic doctors and coroners are also often asked to confirm the identity of the body.

**Neuropathology** is the study of tissue diseases of the nervous system, usually in the form of minor surgical biopsy or whole body autopsy. Neuro pathologists usually work in the anatomical pathology department, but work closely with the clinical disciplines of neurology and neurosurgery, and their diagnosis usually depends on neuropathology.

**Pulmonary pathology** is a branch of surgical pathology that involves the diagnosis and characterization of tumours and non-neoplastic diseases of the lung and pleura. Diagnostic samples are usually obtained through bronchoscopy transbronchial biopsy, CT-guided percutaneous biopsy, or Video-Assisted Thoracic Surgery (VATS). Many pathologists believe that the diagnosis of lung inflammation or fibrosis is particularly demanding.

**Renal pathology** is a branch of structural pathology that involves the diagnosis and characterization of kidney

medical diseases (non-tumour). In an academic environment, nephrologists work closely with nephrologists and transplant surgeons, who usually obtain diagnostic samples through percutaneous kidney biopsy. A renal pathologist must combine the results of optical microscopy, electron microscopy, and immunofluorescence to make a clear diagnosis.

**Psychopathology** is the study of abnormal cognitions, behaviours, and experiences that differ according to social norms. These cognitions, behaviours, and experiences are based on a series of structures that are considered to be social norms in a particular era. Biological psychopathology is the study of the biological causes of abnormal cognition, behaviour, and experience. Child psychopathology specializes in children and adolescents.

**Surgical pathology:** For most anatomical pathologists, surgical pathology is the most important and time-consuming specialty. Surgical pathology includes macroscopic and microscopic examinations of surgical specimens, as well as biopsies submitted by surgeons and non-surgeons (such as general practitioners, medical specialists, dermatologists, and interventional radiologists).

**Hematopathology:** is the study of diseases and disorders, the production of blood cells, blood cells, and all organs and tissues involved in hematopoiesis (such as bone marrow, spleen, and thymus).

**Molecular pathology** is an emerging discipline in pathology, which focuses on studying and diagnosing diseases by studying molecules in organs, tissues or body fluids. Molecular pathology and anatomical pathology and clinical pathology, molecular biology, biochemistry, proteomics, and genetics share some aspects of practice, and are sometimes regarded as “intersecting” disciplines.

**Phytopathology** is the scientific study of plant diseases caused by pathogens (infectious organisms) and environmental conditions (physiological factors). Organisms that cause

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infectious diseases include fungi, oomycetes, bacteria, viruses, viruses, viroid organisms, phytoplasma, protozoa, nematodes, and parasitic plants. It does not contain ectoparasites, such as insects, mites, vertebrates or other pests that affect plant health by eating plant tissues.

**Veterinary pathology:** A veterinary pathologist is a veterinarian who specializes in diagnosing diseases by

examining animal soft tissue and body liquids. Like medical pathology, veterinary pathology is divided into two branches, anatomical pathology and clinical pathology. In addition to diagnosing diseases in food animals, pets, zoo animals, and wild animals, veterinary pathologists also play an important role in drug study and safety and scientific study.