Professional Master's Degree
Update on Oncologic Pathology for Pathologists

tech global university

Professional Master's Degree
Update on Oncologic Pathology for Pathologists

- » Modality: **online**
- » Duration: **12 months**
- » Certificate: **TECH Global University**
- » Credits: **60 ECTS**
- » Schedule: **at your own pace**
- » Exams: **online**

Website: **www.techtitute.com/us/medicine/professional-master-degree/master-update-oncologic-pathology-pathologists**

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01
Introduction

Cancer patients are highly complex medical patients who require the attention and coordination of different health professionals (nurses, psychologists, pathologists, surgeons, oncologists, among others). They must work together towards establishing the most appropriate approach and treatment of the neoplasm, as well as all the secondary pathologies that may appear as the disease progresses. For this reason, multidisciplinary care is now considered a parameter of quality, better patient experience, and a cornerstone of the model of excellent cancer care. This Professional Master's Degree will allow students to develop the skills and abilities required by the profession, generating greater added value to their professional performance.

This Professional Master's Degree in Update on Oncologic Pathology for Pathologists will provide you with confidence in the performance of your profession, which will help you to offer a high-quality service to your patients"

The growing understanding of cancer biology and the different pathways by which the immune system is suppressed during tumor progression has led to the development of various immunotherapeutic strategies that increase the ability to eliminate emerging malignancies. Among these new therapies, anti-PD1 and anti-PDL1 antibodies are showing increasingly unprecedented efficacy. It is, therefore, essential that professionals keep up to date in the different areas of biomedical sciences in order to achieve an optimal understanding and an accurate therapeutic approach.

By presenting the Update on Oncologic Pathology in Professional Master's Degree format, we ensure this requirement by addressing the most recent aspects with great impact on the etiopathogenesis, diagnosis, and prognosis of the most frequent malignant tumors, using an integrative methodology of learning in each of the modules, which excellently interrelates the new techniques and technologies involved in the diagnosis of neoplastic diseases, which not only helps professionals develop the skills required to make an accurate diagnosis, but also to prevent and try to modify, in any way, the outcome of the cancer patient.

This Professional Master's Degree in Update on Oncologic Pathology for Pathologists offers the possibility to specialize in cancer treatment, in order to become an excellent professional with expertise in the latest developments in the treatment of this type of disease.

The program is developed by a range of leading oncology professionals, who contribute to each module with their own professional experiences, the most noteworthy advances and the most effective treatments in each of the cancer specialties that are studied throughout this training program. A great opportunity to specialize in Oncologic Pathology for Pathologists from those who know the most about this subject.

This **Professional Master's Degree in Update on Oncologic Pathology for Pathologists** contains the most complete and up-to-date scientific program on the market. The most important features include:

- More than 75 practical cases presented by experts in Anatomical Pathology
- The graphic, schematic, and eminently practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional practice
- Latest developments in Anatomical Pathology
- Practical exercises where the self-assessment process can be carried out to improve learning
- Special emphasis on innovative methodologies in Anatomical Pathology
- Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection work.
- Content that is accessible from any fixed or portable device with an Internet connection

Update your knowledge through the Professional Master's Degree in Update on Oncologic Pathology for Pathologists"

This Professional Master's Degree may be the best investment you can make in the selection of a refresher program for two reasons: in addition to updating your knowledge in Oncologic Pathology for Pathologists, you will obtain a qualification from TECH Global University"

Enhance your professional performance and improve your patients' quality of life.

Take the opportunity to learn about the latest advances in Oncologic Pathology and be more effective in your daily practice.
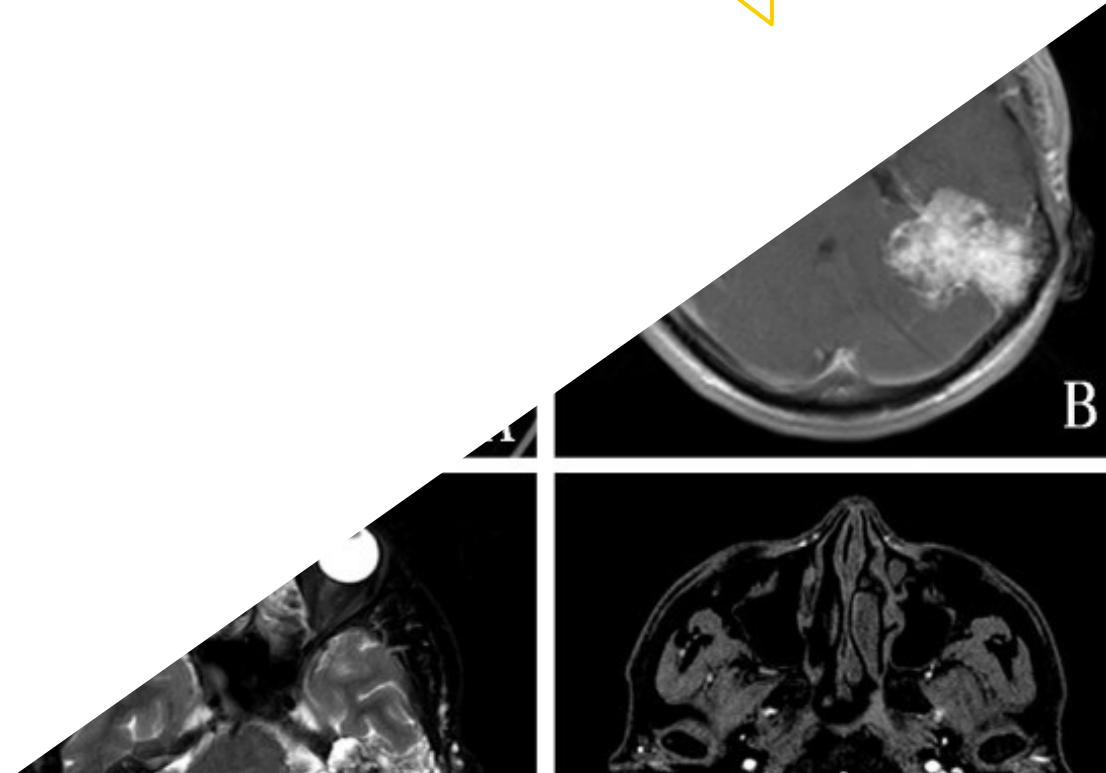
The teaching staff includes anatomical pathology professionals, who bring their experience to this training program, as well as renowned specialists belonging to leading societies and prestigious universities.

The multimedia content, developed with the latest educational technology, will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide an immersive training program designed to train in real situations.

This program is designed around Problem Based Learning, whereby students must try to solve the different professional practice situations that arise during the course. For this purpose, the professional will be assisted by an innovative interactive video system created by renowned and experienced experts in the field of anatomical pathology with extensive medical experience.

02
Objectives

The program in Update on Oncologic Pathology for Pathologists is aimed at facilitating professional medical performance with the latest advances and most innovative treatments in the sector.

> *This is the best training you can get to keep up-to-date with the latest developments in Oncologic Pathology"*

General Objective

- The main objective of this Anatomical Pathology training course is to introduce the professional to the use and management of medical technology, in order to properly interpret data, which will facilitate their daily work with the use of the latest advances available in oncologic treatments

Take advantage of the opportunity and take the step to get up to date on the latest developments in anatomical pathology"

Specific Objectives

Module 1. Cancer General Risk Factors
- Recognize the characteristics of malignant neoplasms, their classification, according to their histogenesis, as well as aspects related to their biological behavior
- Acquire up-to-date knowledge on cancer epidemiological data worldwide
- Learn about screening methods in at-risk populations to diagnose cancerous lesions early
- Recognize the susceptibility genes involved in breast, lung, thyroid, colon, skin, bone, pancreatic, and neuroblastoma cancers, and by what mechanism they participate in tumorigenesis

Module 2. Molecular Basis of Cancer
- Recognize the environmental and occupational factors (mutagenic agents) that are directly and indirectly involved in cancer, and the carcinogenic capacity of some toxic substances found in food
- Relate DNA and RNA viruses known to cause cancer in humans
- Expose the mechanisms by which viruses are able to subjugate the normal activity of host cytoplasmic proteins, affecting key points in the control of the cell cycle, cell growth and differentiation, causing severe alterations in cell growth and cancer development.
- Recognize the role of H pylori bacteria in the pathogenesis of gastric cancer
- Understand cancer as a genetic disease resulting from mutations that accumulate in genes that are critical for the growth and development of somatic cells
- Describe the genes associated with cancer, and the importance of DNA analysis to identify individuals, detect predisposing gene polymorphisms, analyze mutations, and establish the diagnosis of cancer as a genetic disease

- Know the symptoms and signs that are most frequently related to cancer, as well as the different systems for the staging of tumor disease and their importance

- Know the phases of the cell cycle, the critical control points, as well as the genes involved in its regulation

- Explain the positive and negative feedback regulatory processes that contribute to cell cycle progression, and the significance of negative controls on cell cycle progression that are present during development, differentiation, senescence, and cell death, which play an important role in preventing tumorigenesis

- Identify the difference in gene expression between normal tissue and tumor tissue

- Know the stages involved in the transformation of a normal cell to a malignant cell

- Recognize the malignant phenotype as the result of a characteristic pattern of gene expression, alterations in the function of the human genome, which cause erratic growth, dedifferentiation, invasion, and metastasis

- Characterize the different genes involved in cell cycle regulation (growth-promoting genes, growth-inhibiting genes, genes that regulate apoptosis and genes that repair damaged DNA), and the mutations that alter them

- Explain the key role that oncogenes may play in the development of cancer by directing mechanisms that lead to the development of neoplasms

- Know tumor suppressor genes as cytoplasmic components capable of reversing the tumor phenotype; proteins that control the cell cycle, proliferation, and differentiation

- Identify epigenetic aberrations (DNA methylation with silencing of gene expression, and histone modifications that can enhance or dampen expression), which contribute to the malignant properties of cells

- Recognize the role of epigenetic changes in malignant phenotype, including gene expression, control of differentiation, and sensitivity and resistance to anticancer therapy

- Know the genes and proteins associated with malignant diseases and their utility as tumor markers to define a particular entity, its diagnosis, staging, prognosis, and screening in the population

- Know and apply the different technologies used to analyze the gene expression profile of neoplasms to identify clinical and biological aspects that are difficult to determine by histopathological examination; its principles, advantages and disadvantages

- Explain the importance of gene expression profiling for the application of different treatment protocols and the response to them among histologically similar tumors

- Recognize the importance of gene expression profiling in the new classifications of malignant tumors associated with prognosis and response to treatment

Module 3. Childhood Malignant Tumors

- Know the differences between CNS tumors in children and adults

- Study the importance of routine, special, and biomarker stains in Medulloblastoma

- Learn the advances in the diagnosis of CNS embryonal tumors in pediatrics

- Acquire in-depth knowledge of the diagnosis and management of CNS pseudotumoral lesions in children

Module 4. Nervous System Tumors

- Acquire more in-depth knowledge of histological and molecular aspects of adult CNS tumors with greater prevalence and clinical significance
- Recognize the important role of cell cycle checkpoints and DNA repair systems in maintaining the fidelity and integrity of genome replication and repair, and regulating cell cycle dynamics
- Acquire in-depth knowledge of the current diagnostic approach suggested by WHO and the CIMPACT-NOW consortium for the study of CNS tumors
- Acquire up-to-date knowledge of the morphological, molecular, and radiological diagnosis of sellar and suprasellar lesions

Module 5. Thoracic Cavity Organ Tumors

- Carry out an up-to-date review of the morphological knowledge and molecular pathology of the most frequent types of epithelial and non-epithelial thoracic cavity tumors
- Describe the relevant aspects of the diagnosis, prognosis, and differential diagnosis of the main epithelial and mesenchymal lung tumors
- Review relevant aspects of the diagnosis of lesions of each segment of the mediastinum
- Develop molecular diagnostic algorithms for lung and pleural cancer

Module 6. Female Breast Tumors

- Address the epidemiological and diagnostic aspects of breast cancer and its precursors in greater depth
- Take a more in-depth look at the molecular classification of breast cancer
- Delve into the most important aspects, such as pre and post neoadjuvant breast assessment, as well as sentinel lymph node management

Module 7. Genitourinary Tract Tumors

- Gain in-depth knowledge of the causes and molecular and cellular mechanisms involved in pathophysiology
- Acquire an integrative vision in the diagnosis of neoplastic disease
- Review developments in the histopathologic classification of ovarian, vulvar, and uterine tumors
- Study phenotypic expression patterns and molecular pathways involved in carcinogenesis

Module 8. Skin Tumors

- Acquire in-depth knowledge of cutaneous tumor pathology, learning and reviewing the morphological characteristics of the most frequent tumors
- Establish clinical-pathological correlation
- Sample management, from sample collection and preservation to conventional staining, immunohistochemistry, and special laboratory and molecular pathology techniques

Module 9. Gastrointestinal Tract Tumors

- Acquire detailed knowledge of the molecular classification of stomach and colorectal cancer
- Delve at depth into carcinogenesis and morpho-molecular diagnosis of GISTs
- Delve into the role of precursor lesions of the biliopancreatic system

Module 10. Hemolymphoid Tumors

- Gain more in-depth knowledge of the different types of systemic lymphomas and mature B and T neoplasms
- Address the difficulties in the histopathological diagnosis of Hodgkin's lymphoma
- Learn about the morphological and molecular differences between benign and malignant lesions of the hemato-lymphoid system

Module 11. Cytological Diagnosis of Malignant Lesions

- Know the techniques of aspiration cytology of superficial and deep organs
- Indications, limitations, and complications
- Know the cytologic patterns of malignancy, their differential diagnosis
- Role of cytology in the clinical, therapeutic and research contexts in oncopathology

Module 12. Radiology as an Ally of Pathology in Oncologic Diagnosis

- Learn about aspects of the radiological diagnosis of the most common solid tumors in the body
- Learn about radiological techniques that are used in the functional study of malignant tumors
- Learn the uses, contraindications, and complications of invasive diagnostic techniques performed by radiologists
- Know how to detect which radiological alterations are derived from antitumor treatment
- Possess detailed knowledge of the radiological techniques for monitoring tumor pathology

Module 13. Head and Neck Tumors

- Delve into the histological and molecular details of the major tumors of the head and neck, as well as the role of prognostic biomarkers in many of them
- Update and expand the knowledge of oral cancer precursor lesions, as well as tumor pathology of the oral mucosa and salivary glands through the study of the diagnostic difficulties of both histological and molecular characteristics of these diseases

Module 14. Soft Tissue Tumors

- Know the morphological, phenotypic, and molecular characteristics that characterize the various groups of sarcomas
- Describe the main differential diagnoses of each type of sarcoma considering its morphology (myxoid, spindle cell, epithelioid, round cell) and/or its anatomical location (superficial, deep, intra-abdominal, gynecological, etc.
- Describe the most important advances and new diagnostic techniques applied to the diagnosis of sarcomas

Module 15. Big Data in Anatomy Pathology

- Know the main problems in the management and structuring of data in pathology
- Introduction to the fundamentals of Big Data
- Identify opportunities for research and problem solving through Big Data, know its main utilities and limits
- Know the main methodologies most used in Big Data
- Know the main cloud tools for Big Data management and analysis

Module 16. Toxicology for Surgical Pathologists Review of Some Relevant Issues in Daily Practice

- Define the basic and general concepts of toxicology as well as the types of intoxication
- Detect the main anatomopathological signs of death by intoxication
- Know the macroscopic and histological alterations caused by toxic substances in the body
- Provide information on the criteria justifying the reversion of a clinical autopsy to forensic medicine

03
Skills

The program in Update on Oncologic Pathology for Pathologists has been designed in such a way that professionals will be able to identify and solve the problems related to this field of medicine, in order to understand the knowledge that will provide a basis for the development of their profession. After passing the program assessments, students will have acquired the professional competencies necessary to provide quality and updated practice based on the most innovative educational methodology.

With this program, you will master new techniques and advances in Anatomical Pathology"

Skills

- Possess knowledge of the general characteristics of tumors and the factors that determine their aggressiveness
- Know the incidence and prevalence of the disease worldwide and its different distribution in populations
- Recognize the risk factors that influence the development of malignant tumors related to lifestyles and personal habits
- Develop skills on the use of screening methods for early diagnosis of cancerous lesions
- Acquire general knowledge of the symptoms and warning signs of cancer and the staging systems of neoplastic disease and their importance
- Acquire knowledge of the main histological alterations side effects of antineoplastic drugs (adverse reactions) and their role in the mechanism of death
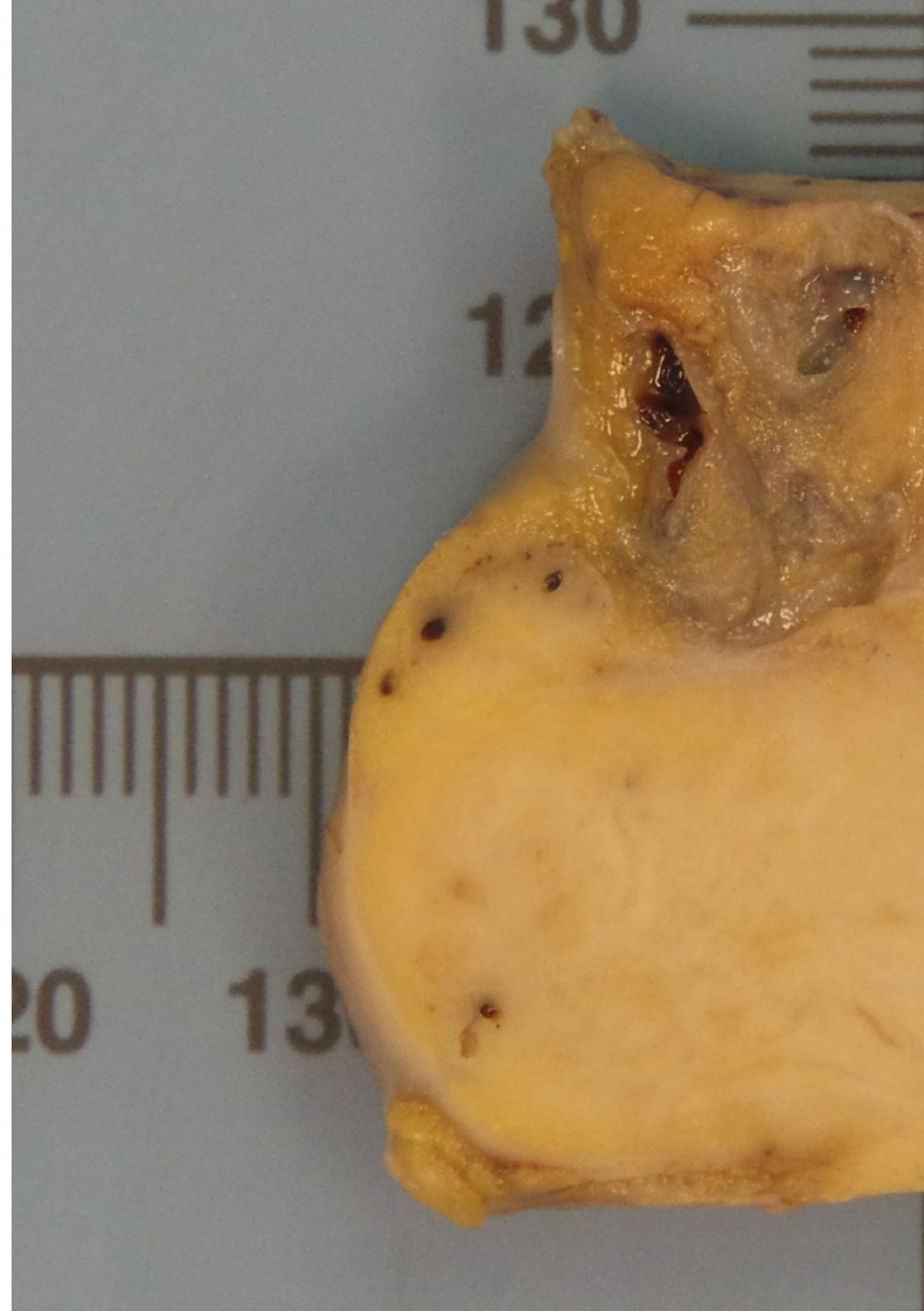
Take advantage of the opportunity and take the step to get up to date on the latest developments in Oncologic Pathology"

04

Course Management

In accordance with its maxim of offering an elite education for all, TECH counts on renowned professionals in order for students to acquire solid knowledge in the area of oncologic pathology. The program's teaching staff includes leading experts in oncologic pathologies who contribute their vast work experience to this training program. Additionally, other recognized experts participate in its design and preparation, completing the program in an interdisciplinary manner.

"

Leading professionals in the field have come together to teach you the procedural advances in Anatomic Pathology"

International guest conductor

With more than 4 decades of professional career in the area of Pathology, Dr. Ignacio Wistuba is considered an international reference in this complex medical field. This prestigious researcher leads the Department of Translational Molecular Pathology at MD Anderson Cancer Center. He is also Director of the Khalifa Institute for Cancer Personalization, linked to the University of Texas.

In parallel, he directs the Thoracic Molecular Pathology Laboratory, the SPORE Lung Tissue Bank and the Institutional Tissue Bank. In turn, he is Director of the Biorepository and Pathology Core Network at the Eastern Cooperative Oncology Group, in conjunction with the American College of Radiology Imaging Network (ECOG-ACRIN).

One of the main lines of work of this pathologist in recent years has been Genomic and Precision Medicine. His multiple investigations in this field have allowed him to address the origin and complexities of different types of tumors, their incidence and their relationship with specific characteristics of the DNA of individuals. Specifically, he has delved into these issues in relation to lung neoplasms.

On the other hand, Wistuba maintains active research collaborations with other specialists from different parts of the world. An example of this is his participation in an exploratory analysis of cytokine levels in pleural fluid associated with immunotherapeutic protocols with the University for Development in Chile. He is also a member of global teams that, orchestrated by the Australian Royal Prince Alfred Hospital, have investigated different predictive biomarkers of lung cancer.

Likewise, the pathologist has sustained a continuous education since his initial studies in distinguished Chilean universities. Proof of this are his postdoctoral research internships in renowned institutions such as the Southwestern Medical Center and the Simmons Cancer Center in Dallas.

Dr. Wistuba, Ignacio

- President of the Department of Translational Molecular Pathology, MD Anderson Cancer Center
- Director of the Division of Pathology/Laboratory Medicine at MD Anderson Cancer Center
- Specialty Pathologist in the Department of Thoracic/Head and Neck Medical Oncology at the
- University of Texas Medical Center
- Director, UT-Lung SPORE Tissue Bank
- Lung Cancer Pathologist for the Lung Cancer Committee at Southwestern Oncology Group (SWOG)
- Principal Investigator on several studies conducted by the Cancer Prevention and Research Institute of Texas
- Principal Investigator of the Translational Genomics and Precision Cancer Medicine Training Program at NIH/NCI
- Postdoctoral Fellow at the Hamon Center for Therapeutic Oncology Research Center

- Postdoctoral Fellow at Southwestern Medical Center and Simmons Cancer Center
- Pathologist at the Catholic University of Chile
- Medical Graduate at Universidad Austral de Chile
- Member of: Academy of American and Canadian Pathologists, Society for Cancer Immunotherapy, American Society of Clinical Oncologym, American Society for Investigative Pathology, American Association for Cancer Research, Association for Molecular Pathology, Society for Pulmonary Pathology

" *Thanks to TECH, you will be able to learn with the best professionals in the world"*

Management

Dr. Rey Nodar, Severino

- Head of the Anatomic Pathology Department, Hospital Universitario Manises, Synlab Europe Valencia, Spain
- FORESC and FEBIP President (Foundation for Sciences and Research USA / Spanish Foundation for Training in Biomedical Sciences and Oncologic Pathology)
- Doctor Honoris Causa 2012, Bircham International University, USA
- Chief Editor of Journal of Cancer and Tumor International
- Member on the Editorial Board of six international journals (topics related to oncopathology)
- Author: Gland Thyroid Pathology Ed. Bubok 2012 and Endocrine Pathology Text and Atlas Ed. EdStudios, Spain, 2018
- Member of the Sciences Academy of NY, 2011
- Member of The Pathologist's 2019 Power List where recognition is given to the top 100 pioneers in the industry The Power List 2019

Professors

Ms. Abreu Marrero, Aliette Rosa
- Imaging Specialist, Private Hospital of Maputo Lenmed
- Professor at Radiology Institute of Medical Sciences in Camagüey

Dr. Aldecoa Ansorregui, Iban
- Expert in Neuropathology
- Specialist in Pathological Anatomy, La Fe Hospital, Valencia

Mr. Archila Sanz, Iván
- Therapy Department Pathological Anatomy, Barcelona Clinical Hospital

Mr. Ballester Lozano, Gabriel
- Anatomy Pathology Service
- Molecular Biologist at Hospital Vinalopó
- Ribera Salud Group

Dr. Barbella, Rosa

- Expert in breast pathology
- Associate Anatomopathologist, Anatomopathology Department, Albacete General Hospital
- Residency Tutor Faculty of Medicine, University of Castilla-La Mancha

Dr. Buendía Alcaraz, Ana

- Anatomy Pathology Service
- Arcos del Mar Menor University Hospital, San Javier, Murcia

Dr. Camarasa Lillo, Natalia

- Expert in Hemato-Lymphoid Pathology
- Specialist in Pathological Anatomy
- Castellón University Hospital, Valencia

Dr. Cuatrecasas, Miriam

- Specialist in Pathological Anatomy, Barcelona Clinical Hospital
- Expert and Consultant in Gastrointestinal Pathology
- Coordinator of the digestive pathology working group, SEAP
- Coordinator of the Catalan Network of Tumor Banks (XBTC) and the Tumor Bank of the Hospital Clinic-IDIBAPS
- Researcher at IDIBAPS

Dr. Fernández Vega, Iván

- Neuropathologist, Anatomic Pathology Service
- Asturias Central University Hospital Oviedo Spain

Dr. García Yllán, Verónica

- Specialist in Anatomic Pathology and Master's Degree in Medicine and Education
- Inscanner in Medical Services

Dr. Machado, Isidro

- Specialist in Pathological Anatomy
- Valencian Institute of Oncology (IVO), Valencia, Spain
- Expert in Soft Tissue Pathology and Sarcomas

Dr. Labiano Miravalles, Tania

- Expert in Cytology
- Specialist in Pathological Anatomy
- Pamplona, Navarra Hospital Complex

Dr. Ortiz Reina, Sebastián

- Specialist in Pathological Anatomy
- University Specialist in Electron Microscopy, Complutense University of Madrid
- University Specialist in Dermatopathology, University of Alcalá de Henares

- Associate Professor of Health Sciences, Courses on Pathological Anatomy, Complutense University of Madrid
- University Professor of Histology and Cell Biology, University School of Nursing, University of Murcia
- University Professor of Medical Student Internships, Catholic University of Murcia
- Residency Tutor of Pathological Anatomy, University Complex of Cartagena

Dr. Ribalta Farrés, Teresa

- Professor of Anatomic Pathology, Universitat de Barcelona
- Expert in Neuropathology, Pediatric Pathology (present)
- Chief of Anatomic Pathology Service, Hospital Sant Joan de Déu

Dr. Rojas, Nohelia

- Specialist in Pathological Anatomy
- Vinalopó and Torrevieja University Hospitals

Mr. Rubio Fornés, Abel

- Mathematician
- Expert in Statistics and Operations Research University of Valencia

Ms. Sansano Botella, Magdalena

- Degree in Criminology, University of Alicante
- Specialist Technician in Pathological Anatomy, University of Alicante
- Pathological Anatomy Service, Vinalopó Hospital

Dr. Serrano Jiménez, María

- Anatomic Pathology Department Physician
- Vinalopó Hospital

Dr. Soto García, Sara

- Specialist Physician, Torrevieja and Vinapoló University Hospitals

Dr. Sua Villegas, Luz Fernanda

- Specialist in Pathological Anatomy
- Specialist in Clinical Pathology
- Doctor in Biomedical Sciences with focus on Solid Tumor Genomics
- Medical Leader of Special Hematology and Hemostasis Laboratory
- Department of Pathology and Laboratory Medicine, Fundación Valle del Lili

Dr. Villar, Karen

- Medical Pathologist
- Pathology Consultation Coordinator
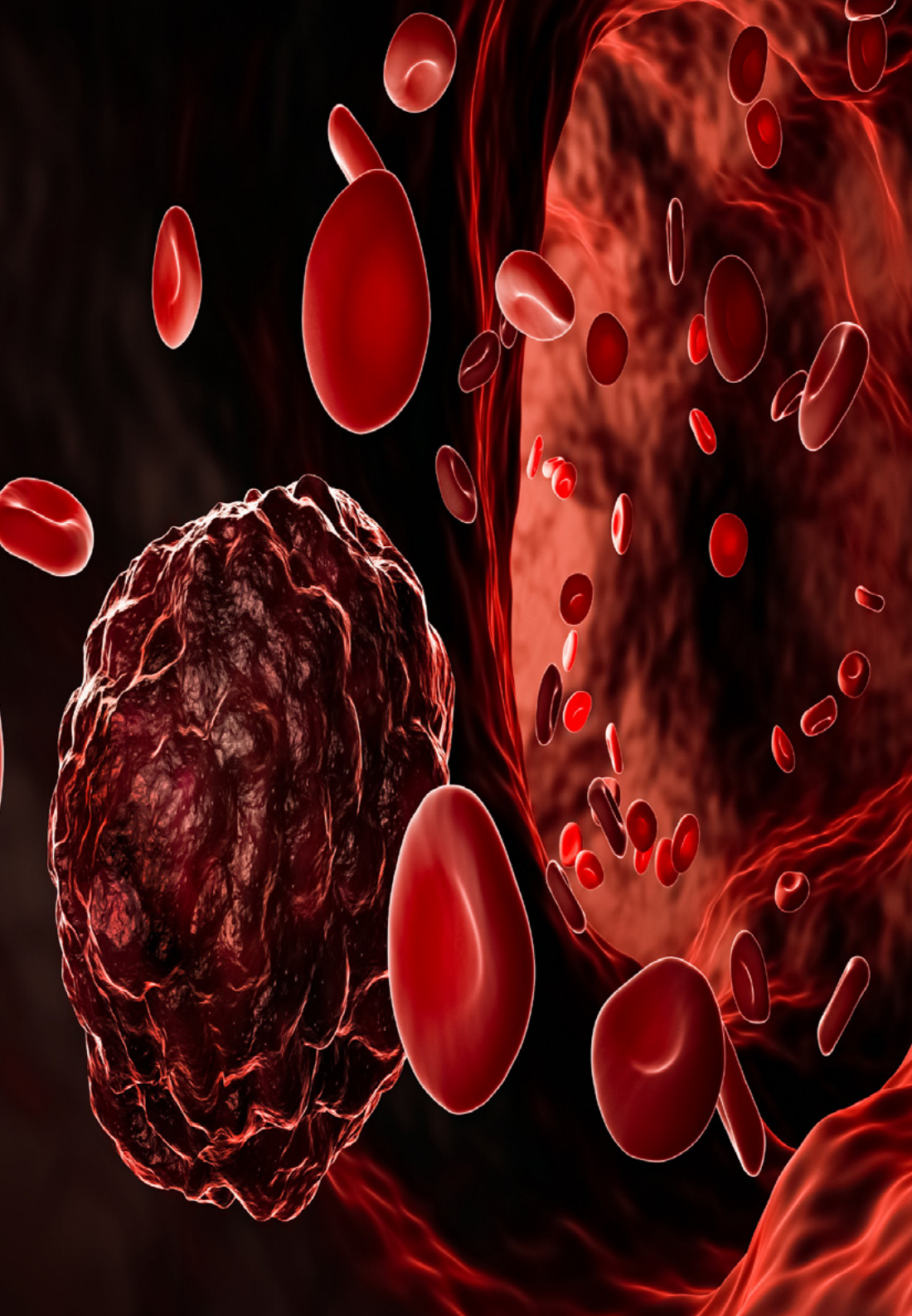
Take the opportunity to learn about the latest advances in this area in order to apply it to your daily practice"

Structure and Content

The structure of the content has been designed by leading professionals in Anatomical Pathology, with extensive experience and recognized prestige in the profession, backed by the volume of cases reviewed, studied, and diagnosed, and with extensive knowledge of new technologies applied to diagnosis. From module 1, students will see their knowledge broadened, which will enable them to develop professionally, knowing that they can count on the support of a team of experts.

This Professional Master's Degree in Update on Oncologic Pathology for Pathologists contains the most complete and up-to-date scientific program on the market"
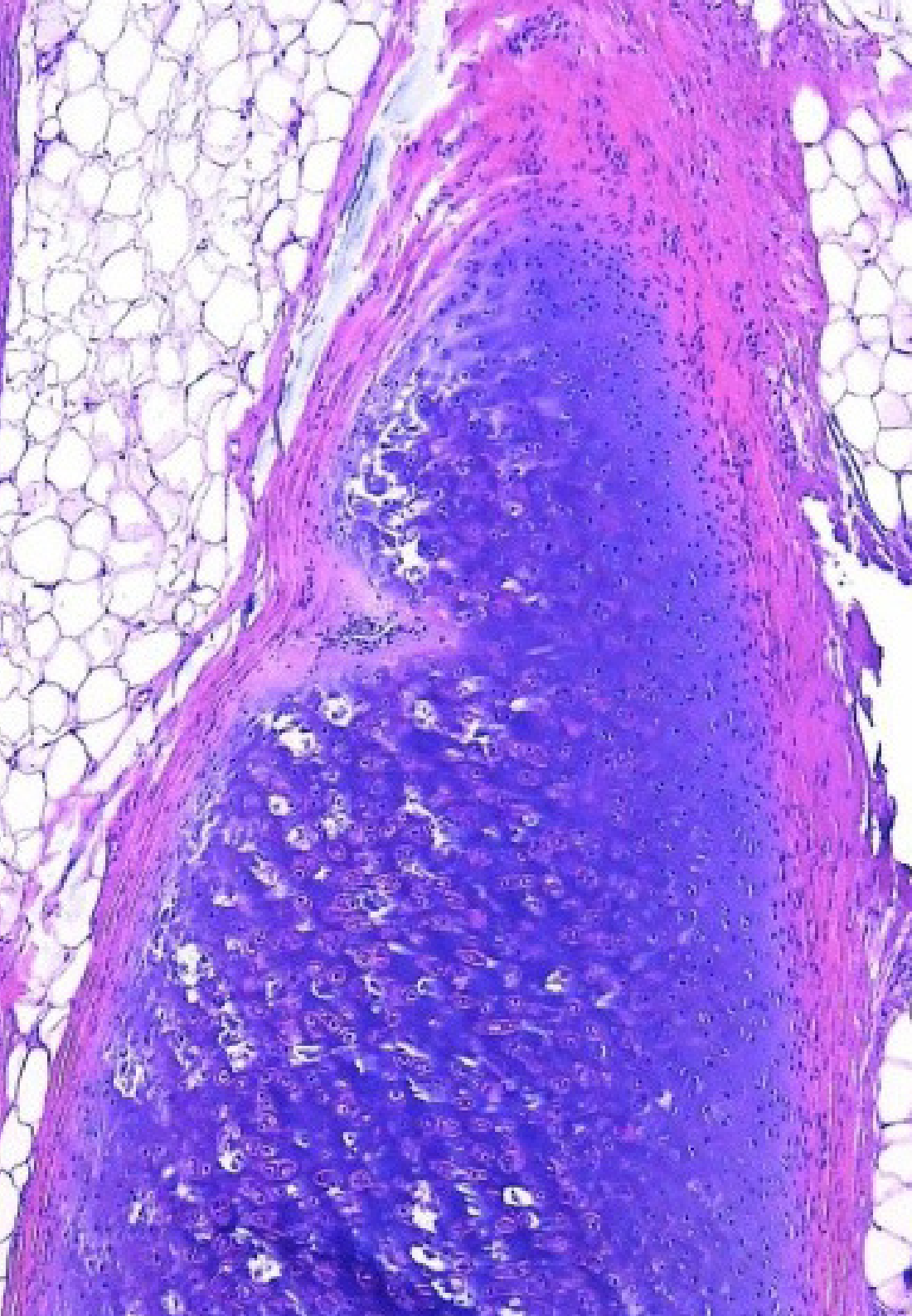
Module 1. Cancer: General Aspects Risk Factors

1.1. Introduction
1.2. Overview of Malignant Neoplasms
    1.2.1. Nomenclature
    1.2.2. Features
    1.2.3. How Metastases Spread
    1.2.4. Prognostic Factors
1.3. Epidemiology of Cancer
    1.3.1. Incidence
    1.3.2. Prevalence
    1.3.3. Geographical Distribution
    1.3.4. Risk Factors
    1.3.5. Prevention
    1.3.6. Early Diagnosis
1.4. Mutagenic Agents
    1.4.1. Environmental Factors
    1.4.2. Work
    1.4.3. Toxic Substances in Food
1.5. Biological Agents and Cancer
    1.5.1. RNA Virus
    1.5.2. DNA Virus
    1.5.3. H. Pylori
1.6. Genetic Predisposition
    1.6.1. Genes Linked to Cancer
    1.6.2. Susceptibility of Genes
        1.6.2.1. Breast Tumors
        1.6.2.2. Lung Tumors
        1.6.2.3. Thyroid Tumors
        1.6.2.4. Colon Tumors
        1.6.2.5. Skin Tumors
        1.6.2.6. Bone Tumors
        1.6.2.7. Pancreatic Tumors
        1.6.2.8. Neuroblastoma

1.7. Clinical Aspects of Malignant Neoplasms
    1.7.1. Introduction
1.8. Neoplastic Disease Staging
    1.8.1. Update

Module 2. Molecular Basis of Cancer

2.1. Introduction to the Molecular Basis of Cancer
2.2. Genes and the Genome
    2.2.1. The Main Cell Signaling Pathways
    2.2.2. Cell Growth and Proliferation
    2.2.3. Cell Death: Necrosis and Apoptosis
2.3. Mutations
    2.3.1. Types of Mutations: Frameshift; Indels, Translocations; SNV; Missense, Nonsense; CNV; Driver vs. Passenger
    2.3.2. Mutation-Causative Agents
        2.3.2.1. Biological Agents and Cancer
    2.3.3. Mutation Repair Mechanisms
    2.3.4. Mutations with Pathological and Non-Pathological Variants
2.4. Major Advances in Precision Medicine
    2.4.1. Tumor Biomarkers
    2.4.2. Oncogenes and Tumor Suppressor Genes
    2.4.3. Diagnostic Biomarkers
        2.4.3.1. Resistance
        2.4.3.2. Prognosis
        2.4.3.3. Pharmacogenomics
    2.4.4. Cancer Epigenetics
2.5. Main Techniques in the Molecular Biology of Cancer
    2.5.1. Cytogenetics and FISH (Fluorescence In Situ Hybridization)
    2.5.2. DNA Extract Quality
    2.5.3. Fluid Biopsy
    2.5.4. PCR as a Basic Molecular Tool
    2.5.5. Sequencing, NGS

Module 3. Childhood Malignant Tumors

Module 4. Nervous System Tumors

4.1. Central Nervous System Tumors
    4.1.1. Morphological and Molecular Classification
    4.1.2. Current Diagnostic Approach According to WHO and the IMPACT-NOW Consortium

4.2. Diffuse and Circumscribed Gliomas; Astrocytomas, Oligodendrogliomas, and Ependymomas
    4.2.1. Morphological and Molecular Classification

4.3. Neuronal and Neuroglial Tumors
    4.3.1. Histomorphological and Molecular Classification
    4.3.2. Diagnostic Approach According to Molecular and Genetic Alterations

4.4. Most Relevant Meningeal Tumors and Mesenchymal Tumors
    4.4.1. WHO Classification: New Morphological and Molecular Details
    4.4.2. Contributions of Molecular Pathology to the Management of these Lesions

4.5. Tumors of the Sellar and Suprasellar Region
    4.5.1. Advances in the Most Recent Classification of Sellar and Suprasellar Tumors
    4.5.2. Contribution of Radiology to the Diagnosis and Management of Sellar and Suprasellar Lesions
    4.5.3. Main Genetic Alterations in Sellar and Suprasellar Tumors

4.6. Peripheral Nerve Neoplasms
    4.6.1. Relevant Aspects of Morphology and Molecular Pathology in Peripheral Nerve Tumor Lesions

Module 5. Thoracic Cavity Organ Tumors

5.1. Neoplastic Lung Pathology
    5.1.1. WHO Classification and its Recent Updates on Lung Tumors
    5.1.2. Pulmonary Adenocarcinoma
    5.1.3. Squamous Cell Carcinoma of the Lung
    5.1.4. Microcytic Carcinoma of the Lung
    5.1.5. Other Primary Carcinomas of the Lung

5.2. Non-Neoplastic Pathology
    5.2.1. Interstitial Pneumonia

5.3. Lung Transplant Pathology
    5.3.1. Acute, Chronic, and Hyperacute Rejection
    5.3.2. Injuries due to Anti-Rejection Therapy
    5.3.3. Pathological and Anatomical Complications of Cardiac Transplantation

5.4. Pleural Pathology
    5.4.1. Classification of Benign and Malignant Pleural Lesions
    5.4.2. Immunohistochemical Diagnosis of Mesothelioma and its Differences with Reactive Pleural Lesions

5.5. Mediastinal Pathology
    5.5.1. Classification of Mediastinal Tumors: Advances and Limitations
    5.5.2. Pathologic and Molecular diagnosis of Mediastinal Tumor Lesions

5.6. Heart Disease
    5.6.1. Cardiac Transplantation

Module 6. Female Breast Tumors

6.1. Breast Cancer Epidemiology
    6.1.1. Global Spread
    6.1.2. Incidence and Prevalence
    6.1.3. Risk factors
    6.1.4. Early Diagnosis

6.2. Cancer Diagnostic Circuit
    6.2.1. Multidisciplinary Work
    6.2.2. Radiology and Pathological Anatomy of the Breast
    6.2.3. Diagnosis by Core Needle Biopsy and Vacuum Aspiration

6.3. General Information on the Breast
    6.3.1. Hormone Receptor Expression

6.4.   Clinical Aspects of Precursor Lesions of Breast Cancer
    6.4.1.   B3 Lesions
    6.4.2.   Diagnosis: Immunohistochemical Panel
    6.4.3.   Treatment
        6.4.3.1. Excision
        6.4.3.2. Bless
        6.4.3.3. Active Surveillance
        6.4.3.4. Hormone Therapy
6.5.   Invasive Ductal and Lobular Carcinoma
    6.5.1.   Clinical Radiological Aspects
    6.5.2.   Biological Behavior
    6.5.3.   Hereditary Cancer Staging (TNM)
    6.5.4.   Prognostic Group
    6.5.5.   Biological Profile of Breast Cancer
        6.5.5.1. Hormone Receptors, ki67 and HER2 (Immunohistochemical Diagnosis-HIS)
    6.5.6.   Role of p53 and -2 in Breast Cancer
    6.5.7.   New Therapeutic Targets
        6.5.7.1. PD1/PDL-1
6.6.   Anatomical and Pathological Assessment of the Breast after Neoadjuvant Treatment
    6.6.1.   Sentinel Lymph Node
        6.6.1.1. Pre- and Post-Neoadjuvant Diagnosis
            6.6.1.1.1. OSNA Method
            6.6.1.1.2. Frozen Section
6.7.   Axillary Management
    6.7.1.   Axillary Conservation vs. Lymphadenectomy

Module 7. Genitourinary Tract Tumors

7.1.   Ovarian (Dr. María Serrano)
    7.1.1.   Epidemiology
        7.1.1.1. Hereditary Ovarian Cancer
    7.1.2.   Classification
        7.1.2.1. Update and Concepts
        7.1.2.2. Epithelial Surface Ovarian Tumors
        7.1.2.3. Pathogenesis
        7.1.2.4. Histological Subtypes
        7.1.2.5. Immunohistochemistry
        7.1.2.6. Molecular Characteristics
    7.1.3.   Ovarian Stromal Tumors
        7.1.3.1. Histological Subtypes
        7.1.3.2. Immunohistochemistry
        7.1.3.3. Molecular Characteristics
    7.1.4.   Ovarian Germ Cell Tumors
        7.1.4.1. Histological Subtypes
        7.1.4.2. Immunohistochemistry
        7.1.4.3. Molecular Characteristics
    7.1.5.   Immunotherapy
        7.1.5.1. The Role of the Pathologist in Therapeutic Targets for Ovarian Cancer
7.2.   Vulvar (Dr. Sara Soto)
    7.2.1.   Precursor Lesions of Vulvar Carcinoma
        7.2.1.1. New Terminology
    7.2.2.   Types of Vulvar Epithelial Carcinomas
        7.2.2.1. Update
    7.2.3.   TNM/FIGO Classification
        7.2.3.1. Update
    7.2.4.   Other Malignant Neoplasms

Module 8. Skin Tumors

8.3.   Malignant Neoplasms

    8.3.1.   Actinic Keratosis

    8.3.2.   Bowen's Disease

    8.3.3.   Basal Cell Carcinomas

    8.3.4.   Squamous cell carcinoma

8.4.   Adnexal Tumors

    8.4.1.   Tumors with Sebaceous Differentiation

    8.4.2.   Tumors with Follicular Differentiation

    8.4.3.   Tumors with Glandular Differentiation

8.5.   Cutaneous Lymphoid Infiltrates

    8.5.1.   Lymphoid Hyperplasia

    8.5.2.   T Lymphomas

    8.5.3.   Mycosis Fungoides

    8.5.4.   CD30+ Lymphoproliferative Processes

    8.5.5.   Primary Cutaneous T Lymphomas

    8.5.6.   B Lymphomas

    8.5.7.   Marginal Zone B lymphomas

    8.5.8.   Follicular Center B Lymphomas

    8.5.9.   Diffuse Large Cell B Lymphoma

8.6.   Melanocytic Tumors

    8.6.1.   Lentigo

    8.6.2.   Dermal Melanosis and Melanocytosis

    8.6.3.   Melanocytic Nevi

    8.6.4.   Melanoma

8.7.   Mesenchymal Tumors

    8.7.1.   Vascular Tumors

    8.7.2.   Adipose Tissue Tumors

    8.7.3.   Tumors and Fibrous Proliferations

    8.7.4.   Muscular and Osteocartilaginous Tumors

8.8.   Neural and Neuroendocrine Tumors

    8.8.1.   Peripheral Nerve Tumors

    8.8.2.   Neuroendocrine Tumors

        8.8.2.1. Neuroectodermal Tumor

        8.8.2.2. Merkel Cells Carcinoma

Module 9. Gastrointestinal Tract Tumors

9.1.   Molecular Diagnosis and Classification of Stomach Cancer

    9.1.1.   Molecular Diagnosis and Classification of Stomach Cancer

    9.1.2.   Classification

9.2.   Molecular Classification of Colorectal Carcinoma

    9.2.1.   Hereditary Colorectal Carcinoma

    9.2.2.   Serrated Polyposis Syndrome

    9.2.3.   Molecular Staging of Colorectal Carcinoma

9.3.   Gastrointestinal Stromal Tumors (GIST)

    9.3.1.   Genetics

    9.3.2.   Therapeutic Implications

9.4.   Biliopancreatic and Ampullary Precursor Lesions

    9.4.1.   Biliopancreatic Precursor Lesions

    9.4.2.   Ampullary Lesions

9.5.   Esophageal Lesions

    9.5.1.   Biliopancreatic Precursor Lesions

    9.5.2.   Role of Infectious Agents in Esophageal Cancer

    9.5.3.   Rare Esophageal Tumors

Module 10. Hemolymphoid Tumors

10.1.   Diagnostic Tools in Lymphomas

    10.1.1.   General Aspects

    10.1.2.   Indispensable Tools in the Diagnosis and Management of Lymphoid Pathology

10.2.   The Main Mature B-Cell Neoplasms (1)

    10.2.1.   General Aspects

10.3.   The Main Mature B-Cell Neoplasms (2)

    10.3.1.   General Aspects

10.4.   Mature T and NK Cell Neoplasms

    10.4.1.   General Aspects

10.5.   Diagnostic Difficulties in Hodgkin's Lymphoma

    10.5.1.   Description of Hodgkin's Lymphoma

    10.5.2.   Diagnostic Difficulties

Module 11. Cytological Diagnosis of Malignant Lesions

11.1.   Introduction to Cytopathology (ART and SCIENCE)
    11.1.1.   Historical Perspective
    11.1.2.   Practical Concepts
        11.1.2.1. Management
        11.1.2.2. Staining
    11.1.3.   Basic Concepts Cytomorphology
11.2.   Exfoliative Cytology
    11.2.1.   Gynecologic Cytology - Bethesda System
    11.2.2.   Urine Cytology - Paris System
    11.2.3.   Bodily Fluids Cytology
11.3.   Superficial Fine Needle Aspiration Puncture
    11.3.1.   Introduction
        11.3.1.1. Practical Aspects
    11.3.2.   Thyroid and Salivary Gland FNA
    11.3.3.   Breast FNA
    11.3.4.   Soft Tissue and Bone FNA
11.4.   DEEP Fine Needle Aspiration Puncture
    11.4.1.   Introduction - ROSE (Rapid On-Site Evaluation)
        11.4.1.1. Lung and Mediastinal FNA
        11.4.1.2. Pancreas FNA
        11.4.1.3. Lymph Node FNA
11.5.   Differential Diagnosis in Cytopathology
    11.5.1.   Main Cytomorphological Patterns
    11.5.2.   Immunocytohistochemistry
    11.5.3.   Molecular Cytopathology
11.6.   The Role of Cytopathologists in the Treatment of Cancer
    11.6.1.   Study of Biomarkers in Cytological Samples
    11.6.2.   Immunotherapy and the Role of Cytopathology
    11.6.3.   Challenges and New Perspectives

Module 12. Radiology as an Ally to Pathology in Oncologic Diagnosis

12.1.   Diagnostic Imaging and Cancer Staging
    12.1.1.   Lung Neoplasia
    12.1.2.   Colorectal Neoplasia
    12.1.3.   Breast Neoplasia
    12.1.4.   Prostate Neoplasia
    12.1.5.   Gynecologic Neoplasia
    12.1.6.   Lymphoma
    12.1.7.   Melanoma
    12.1.8.   Other GI Tract Tumors
    12.1.9.   Hepatocarcinoma and Cholangiocarcinoma
    12.1.10. Pancreatic Tumors
    12.1.11. Renal Tumors
    12.1.12. Thyroid Cancer
    12.1.13. Brain Tumors
12.2.   Image-Guided FNA and CNB
    12.2.1.   Thyroid
    12.2.2.   Breast
    12.2.3.   Lung and Mediastinum
    12.2.4.   Liver and Abdominal Cavity
    12.2.5.   Prostate
12.3.   Monitoring
    12.3.1.   RECIST 1.1 and Chung
    12.3.2.   EASL, m-RECIST and RECICL
    12.3.3.   MacDonald and RANO Criteria
    12.3.4.   CHOI, MDA, and Lugano Criteria
    12.3.5.   Modified CHOI Criteria; SCAT and MASS
    12.3.6.   MET-RAD-P
    12.3.7.   PERCIST
    12.3.8.   Immunotherapy
12.4.   Treatment Complications
    12.4.1.   Oncologic Emergencies
    12.4.2.   Treatment Complications

Module 13. Head and Neck Tumors.

13.1. Fine Needle Aspiration of Head and Neck Lesions

    13.1.1. Basic Principles

13.2. Anatomopathological Diagnosis in Small Biopsies of the Upper Aerodigestive Tract

    13.2.1. Basic Principles

13.3. Selected Head and Neck Tumors

    13.3.1. Parathyroid Pathology

    13.3.2. Thyroid Pathology

    13.3.3. Pituitary Gland Pathology

13.4. Salivary Gland Neoplasms

    13.4.1. Basic Principles

13.5. Destructive Diseases of the Midfacial Region

    13.5.1. Typology

13.6. Sinonasal Pathology

    13.6.1. Basic Principles

13.7. Selected Topics in Ear Pathology

    13.7.1. Definition

13.8. Intraoperative Biopsy in Head and Neck Tumors

    13.8.1. Intraoperative Biopsy in Head Tumors

    13.8.2. Intraoperative Biopsy in Neck Tumors

13.9. Head and Neck Pathology

    13.9.1. Mouth

    13.9.2. Salivary Glands

    13.9.3. Epidemiology of Oral and Laryngeal Cancer

    13.9.4. Global Spread

    13.9.5. Incidence and Prevalence

    13.9.6. Risk factors

    13.9.7. Early Diagnosis

    13.9.8. Premalignant Lesions

        13.9.8.1. Leukoplakia

        13.9.8.2. Erythroplakia

        13.9.8.3. Actinic Cheilitis

        13.9.8.4. Lichen Planus

    13.9.9. Clinical Characteristics

    13.9.10. Staging

    13.9.11. Dysplasia Grading System for Head and Neck Lesions

    13.9.12. HPV and Epstein-Barr Virus in Oral Cancer

    13.9.13. Update on Head and Neck Tumors

        13.9.13.1. 4th Edition of the WHO Blue Book

    13.9.14. Epidemiology of Malignant Salivary Gland Lesions

        13.9.14.1. Clinical Symptoms

        13.9.14.2. Diagnostic Imaging

        13.9.14.3. Anatomopathologic Diagnosis

        13.9.14.4. Adenoid Cystic Carcinoma ex Pleomorphic Adenoma

        13.9.14.5. Mucoepidermoid Carcinoma and Low-Grade Polymorphous Adenocarcinoma

        13.9.14.6. Molecular Alterations Involved in the Development of Salivary Gland Tumors

        13.9.14.7. Biomarkers and Immunohistochemical Panel

Module 14. Soft Tissue Tumors

14.1. Molecular Alterations in Sarcomas

    14.1.1. Grading Systems in Cylindrical Biopsy and Surgical Specimen

    14.1.2. Contributions of Radiological Imaging and PET Techniques in Sarcoma Diagnosis

    14.1.3. What to Report to Oncologists in a Cylindrical Biopsy in Case of a Suspected Sarcoma

14.2. Adipocytic, Fibroblastic, and Myofibroblastic Tumors

    14.2.1. Adipocytic Tumors

    14.2.2. Fibroblastic Tumors

    14.2.3. Myofibroblastic Tumors

14.3. Fibrohistiocytic Tumor, Smooth Muscle Lesions, Skeletal Muscle, and Vascular Lesions

    14.3.1. Fibrohistiocytic Tumors

    14.3.2. Smooth Muscle Lesions

    14.3.3. Skeletal Muscle

14.4. Nerve Sheath Neoplasms, GIST, and Tumors of Uncertain Differentiation

    14.4.1. Myxoma

    14.4.2. Angiomyxoma

    14.4.3. Pleomorphic Angiectatic Tumor

    14.4.4. Synovial Sarcoma

    14.4.5. Epithelioid Sarcoma

    14.4.6. Clear Cell Sarcoma

14.5. Undifferentiated or Unclassifiable Sarcomas, Ewing/PNET Sarcomas, Ewing-like Sarcomas

    14.5.1. Undifferentiated or Unclassifiable Sarcomas

    14.5.2. Ewing/PNET Sarcomas

    14.5.3. Ewing-Like Sarcomas

14.6. Advances in Immunohistochemistry and Molecular Biology in the Diagnosis of Soft Tissue Sarcomas

    14.6.1. Advances in Immunohistochemistry

    14.6.2. Molecular Biology in the Diagnosis of Soft Tissue Sarcomas

14.7. Problem Cases of Myxoid, Spindle Cell, Pleomorphic Epithelioid, Rhabdoid, and Round Cell Sarcomas in Pediatric and Adult Patients, Superficial vs. Deep Location

    14.7.1. Typology

    14.7.2. Differences between Pediatric and Adult Patients

    14.7.3. Differences according to Location

14.8. Intra-Abdominal Sarcomas

    14.8.1. Basic Principles

14.9. Diagnostic Algorithms for Each Group of Sarcomas

    14.9.1. Typology

Module 15. Big Data in Anatomy Pathology

15.1. Introduction to Big Data in Pathology

    15.1.1. Introduction

        15.1.1.1. Pathology and Databases

        15.1.1.2. Data Mining in Pathology

        15.1.1.3. Big Data

            15.1.1.3.1. The Fundamentals of Big Data

            15.1.1.3.2. Types of Databases

                15.1.1.3.2.1 Relational

                15.1.1.3.2.2 Non-Relational (SQL and NoSQL)

            15.1.1.3.3. Types of Data

                15.1.1.3.3.1 Structured

                15.1.1.3.3.2 Unstructured

                15.1.1.3.3.3 Semistructured

            15.1.1.3.4. The Limits of Big Data

15.2. Great Opportunities and Uses of Big Data

    15.2.1. Data Standardization and Digital Pathology

    15.2.2. Personalized Medicine: Personalized Diagnostics and Therapies

    15.2.3. Predictive Markers

    15.2.4. Advances in Research Fields Such As: Genomics, Molecular Pathology Diagnostics, Proteomics, and Diagnostic Comparison

15.3. Algorithms, Models and Methodologies used in Big Data

    15.3.1. Architectures for Massively Parallel Processing

    15.3.2. Modeling and Decision Trees

    15.3.3. Machine Learning and Deep Learning

    15.3.4. Neural Networks:

Module 16. Toxicology for Surgical Pathologists: Review of Some Relevant Issues in Daily Practice

A unique, key, and decisive training experience to boost your professional development"

Methodology

This academic program offers students a different way of learning. Our methodology uses a cyclical learning approach: **Relearning.**
This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.

Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"

At TECH we use the Case Method

What should a professional do in a given situation? Throughout the program, students will face multiple simulated clinical cases, based on real patients, in which they will have to do research, establish hypotheses, and ultimately resolve the situation. There is an abundance of scientific evidence on the effectiveness of the method. Specialists learn better, faster, and more sustainably over time.

With TECH you will experience a way of learning that is shaking the foundations of traditional universities around the world.

According to Dr. Gérvas, the clinical case is the annotated presentation of a patient, or group of patients, which becomes a "case", an example or model that illustrates some peculiar clinical component, either because of its teaching power or because of its uniqueness or rarity. It is essential that the case is based on current professional life, trying to recreate the real conditions in the physician's professional practice.

"

Did you know that this method was developed in 1912, at Harvard, for law students? The case method consisted of presenting students with real-life, complex situations for them to make decisions and justify their decisions on how to solve them. In 1924, Harvard adopted it as a standard teaching method"

The effectiveness of the method is justified by four fundamental achievements:

1. Students who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity, through exercises that evaluate real situations and the application of knowledge.

2. Learning is solidly translated into practical skills that allow the student to better integrate into the real world.

3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.

4. Students like to feel that the effort they put into their studies is worthwhile. This then translates into a greater interest in learning and more time dedicated to working on the course.

Relearning Methodology

At TECH we enhance the case method with the best 100% online teaching methodology available: Relearning.

This university is the first in the world to combine the study of clinical cases with a 100% online learning system based on repetition, combining a minimum of 8 different elements in each lesson, a real revolution with respect to the mere study and analysis of cases.

Professionals will learn through real cases and by resolving complex situations in simulated learning environments. These simulations are developed using state-of-the-art software to facilitate immersive learning.

01 learning from evidence

02 relearning from evidence

03 testing

04 learning from an expert

05 neurocognitive context dependent learning

06 Von-Restorff effect

07 case based learning through storytelling

08 competencies testing (retesting)

At the forefront of world teaching, the Relearning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best online university (Columbia University).

With this methodology, more than 250,000 physicians have been trained with unprecedented success in all clinical specialties regardless of surgical load. Our pedagogical methodology is developed in a highly competitive environment, with a university student body with a strong socioeconomic profile and an average age of 43.5 years old.

Relearning will allow you to learn with less effort and better performance, involving you more in your specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to success.

In our program, learning is not a linear process, but rather a spiral (learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

The overall score obtained by TECH's learning system is 8.01, according to the highest international standards.

This program offers the best educational material, prepared with professionals in mind:

Study Material

All teaching material is produced by the specialists who teach the course, specifically for the course, so that the teaching content is highly specific and precise.

These contents are then applied to the audiovisual format, to create the TECH online working method. All this, with the latest techniques that offer high quality pieces in each and every one of the materials that are made available to the student.

Surgical Techniques and Procedures on Video

TECH introduces students to the latest techniques, the latest educational advances and to the forefront of current medical techniques. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch the videos as many times as you like.

Interactive Summaries

The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".

Additional Reading

Recent articles, consensus documents and international guidelines, among others. In TECH's virtual library, students will have access to everything they need to complete their course.

20%

15%

15%

3%

20%

17%

7%

3%

Expert-Led Case Studies and Case Analysis

Effective learning ought to be contextual. Therefore, TECH presents real cases in which the expert will guide students, focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.

Testing & Retesting

We periodically evaluate and re-evaluate students' knowledge throughout the program, through assessment and self-assessment activities and exercises, so that they can see how they are achieving their goals.

Classes

There is scientific evidence on the usefulness of learning by observing experts. The system known as Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.

Quick Action Guides

TECH offers the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help students progress in their learning.

06 Certificate

The Professional Master's Degree in Update on Oncologic Pathology for Pathologists guarantees you, in addition to the most rigorous and updated training, access to a Professional Master's Degree issued by TECH Global University.

Successfully complete this program and receive your university degree without travel or laborious paperwork"

This private qualification will allow you to obtain a **Professional Master's Degree diploma in Update on Oncologic Pathology for Pathologists** endorsed by **TECH Global University**, the world's largest online university.

TECH Global University is an official European University publicly recognized by the Government of Andorra (*official bulletin*). Andorra is part of the European Higher Education Area (EHEA) since 2003. The EHEA is an initiative promoted by the European Union that aims to organize the international training framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of collaborative tools and strengthening its quality assurance mechanisms to enhance collaboration and mobility among students, researchers and academics.
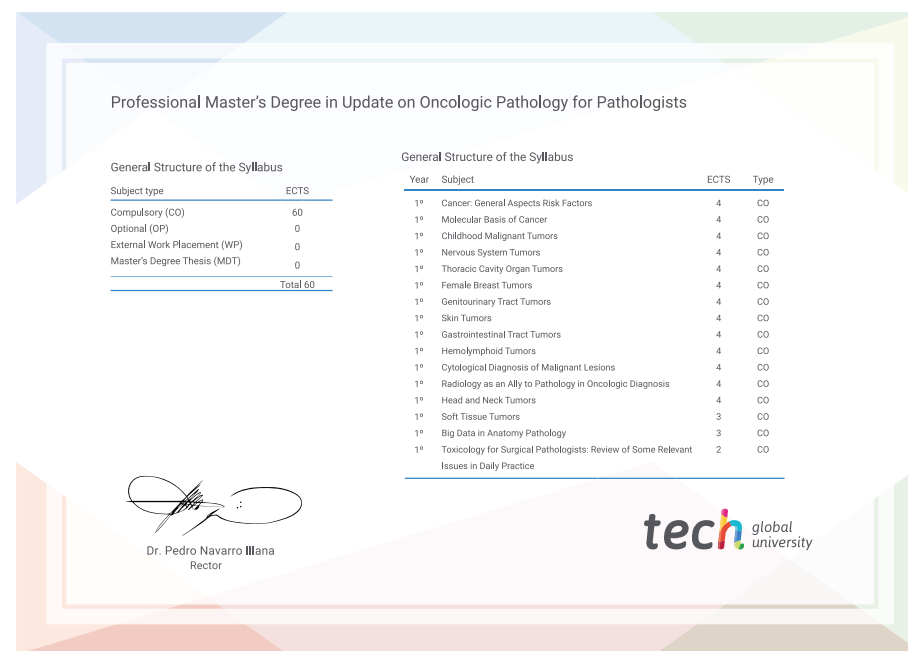
This **TECH Global University** private qualification is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Professional Master's Degree in Update on Oncologic Pathology for Pathologists**

Modality: **online**

Duration: **12 months**

Accreditation: **60 ECTS**

tech global university

Mr./Ms. _____, with identification document _____
has successfully passed and obtained the title of:

Professional Master's Degree in Update on Oncologic Pathology for Pathologists

This is a private qualification of 1,800 hours of duration equivalent to 60 ECTS, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH Global University is a university officially recognized by the Government of Andorra on the 31st of January of 2024, which belongs to the European Higher Education Area (EHEA).

In Andorra la Vella, on the 28th of February of 2024

Dr. Pedro Navarro Illana
Dean

This qualification must always be accompanied by the university degree issued by the competent authority to practice professionally in each country.   Unique TECH Code: AFWORD23S   techtitute.com/certificates

Professional Master's Degree in Update on Oncologic Pathology for Pathologists

General Structure of the Syllabus

Subject type	ECTS
Compulsory (CO)	60
Optional (OP)	0
External Work Placement (WP)	0
Master's Degree Thesis (MDT)	0
Total	60

General Structure of the Syllabus

Year	Subject	ECTS	Type
1º	Cancer: General Aspects Risk Factors	4	CO
1º	Molecular Basis of Cancer	4	CO
1º	Childhood Malignant Tumors	4	CO
1º	Nervous System Tumors	4	CO
1º	Thoracic Cavity Organ Tumors	4	CO
1º	Female Breast Tumors	4	CO
1º	Genitourinary Tract Tumors	4	CO
1º	Skin Tumors	4	CO
1º	Gastrointestinal Tract Tumors	4	CO
1º	Hemolymphoid Tumors	4	CO
1º	Cytological Diagnosis of Malignant Lesions	4	CO
1º	Radiology as an Ally to Pathology in Oncologic Diagnosis	4	CO
1º	Head and Neck Tumors	4	CO
1º	Soft Tissue Tumors	3	CO
1º	Big Data in Anatomy Pathology	3	CO
1º	Toxicology for Surgical Pathologists: Review of Some Relevant Issues in Daily Practice	2	CO

Dr. Pedro Navarro Illana
Rector

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*Apostille Convention. In the event that the student wishes to have their paper diploma issued with an apostille, TECH Global University will make the necessary arrangements to obtain it, at an additional cost.

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Professional Master's Degree
Update on Oncologic Pathology for Pathologists

» Modality: **online**
» Duration: **12 months**
» Certificate: **TECH Global University**
» Credits: **60 ECTS**
» Schedule: **at your own pace**
» Exams: **online**

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