Professional Master's Degree

Cancer of Unknown Primary

Endorsed by:

GETTHI

Grupo Español de Oncología Transversal y Tumores Huérfanos e Infrecuentes

tech global university

tech global university

Professional Master's Degree

Cancer of Unknown Primary

- 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-cancer-unknown-primary

Index

01 Introduction to the Program — p. 4

02 Why Study at TECH? — p. 8

03 Syllabus — p. 12

04 Teaching Objectives — p. 26

05 Study Methodology — p. 32

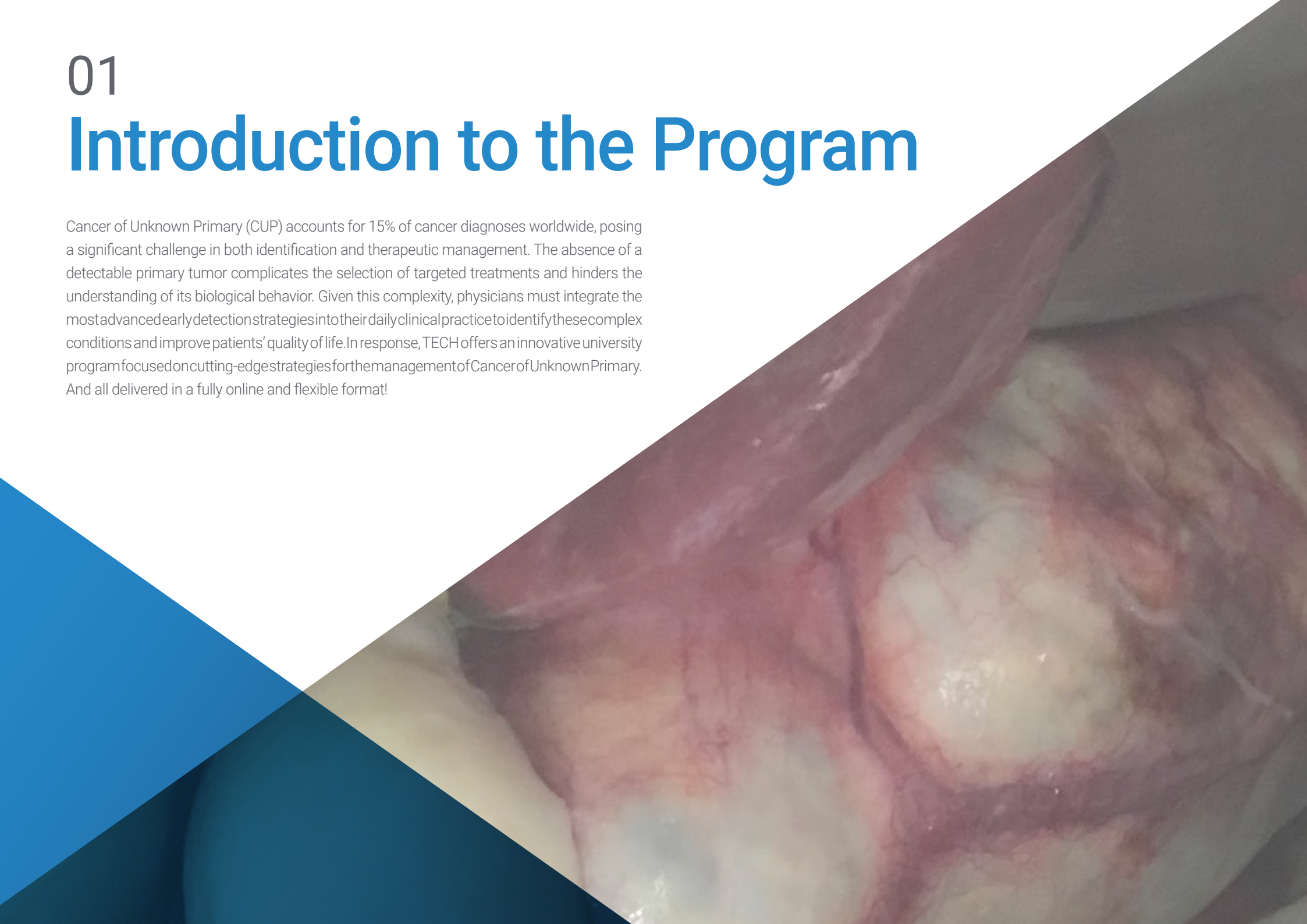
06 Teaching Staff — p. 42

07 Certificate — p. 48

01

Introduction to the Program

Cancer of Unknown Primary (CUP) accounts for 15% of cancer diagnoses worldwide, posing a significant challenge in both identification and therapeutic management. The absence of a detectable primary tumor complicates the selection of targeted treatments and hinders the understanding of its biological behavior. Given this complexity, physicians must integrate the most advanced early detection strategies into their daily clinical practice to identify these complex conditions and improve patients' quality of life. In response, TECH offers an innovative university program focused on cutting-edge strategies for the management of Cancer of Unknown Primary. And all delivered in a fully online and flexible format!



Thanks to this 100% online Professional Master's Degree, you will master the most innovative diagnostic strategies for managing Cancer of Unknown Primary and optimize patient quality of life"

Tumors of unidentified origin represent a complex challenge in Oncology. In response, the scientific community has developed new detection strategies that contribute to personalized therapies and long-term patient well-being. Therefore, it is essential for physicians to stay at the forefront of the latest advances in molecular diagnostics, bioinformatics, and targeted therapies to increase early cancer detection accuracy.

To support this, TECH has created an exclusive Professional Master's Degree in Cancer of Unknown Primary. Designed by renowned specialists in the field, the syllabus delves into cutting-edge molecular biology tools, including liquid biopsies and sequencing platforms. In this way, graduates will develop advanced clinical skills to rigorously detect genetic alterations associated with these tumors. The program also equips physicians with the knowledge to optimize evidence-based clinical decision-making,. As such, professionals will be able to perform a more precise selection of effective treatments tailored to each patient's molecular profile.

Additionally, this degree adapts to physicians' needs with a fully flexible 100% online format. Available 24/7 and accessible from any device, it allows learners to progress at their own pace. TECH's innovative Relearning methodology ensures professionals effectively develop their skills, maximizing practical knowledge updates in the treatment of Cancer of Unknown Primary.

This **Professional Master's Degree in Cancer of Unknown Primary** contains the most complete and up-to-date university program on the market. Its most notable features are:

- The development of practical case studies presented by experts in Medicine
- The graphic, schematic, and practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional practice
- Practical exercises where the self-assessment process can be carried out to improve learning
- Its special emphasis on innovative methodologies in the management of the audiovisual industry
- Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- Content that is accessible from any fixed or portable device with an Internet connection

You will analyze the genetic and epigenetic patterns of complex tumors through an agnostic approach"

You will lead oncology teams, fostering collaboration among various specialists to optimize clinical decision-making and provide top-quality care"

You will apply innovative approaches for the personalized treatment of Cancer of Unknown Primary, using state-of-the-art sequencing tools.

You will select the most appropriate therapies to treat the tumor based on the latest scientific evidence and the most up-to-date clinical guidelines.

The faculty includes medical professionals who bring their practical experience to the program, alongside renowned specialists from 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 learning experience designed to prepare for real-life situations.

This program is designed around Problem-Based Learning, whereby the student must try to solve the different professional practice situations that arise throughout the program. For this purpose, the professional will be assisted by an innovative interactive video system created by renowned and experienced experts.

02

Why Study at TECH?

TECH is the world's largest online university. With an impressive catalog of more than 14,000 university programs, available in 11 languages, it is positioned as a leader in employability, with a 99% job placement rate. In addition, it has a huge faculty of more than 6,000 professors of the highest international prestige.

Study at the largest online university in the world and ensure your professional success. The future begins at TECH"

The world's best online university, according to FORBES

The prestigious Forbes magazine, specialized in business and finance, has highlighted TECH as "the best online university in the world" This is what they have recently stated in an article in their digital edition in which they echo the success story of this institution, "thanks to the academic offer it provides, the selection of its teaching staff, and an innovative learning method oriented to form the professionals of the future".

The best top international faculty

TECH's faculty is made up of more than 6,000 professors of the highest international prestige. Professors, researchers and top executives of multinational companies, including Isaiah Covington, performance coach of the Boston Celtics; Magda Romanska, principal investigator at Harvard MetaLAB; Ignacio Wistuba, chairman of the department of translational molecular pathology at MD Anderson Cancer Center; and D.W. Pine, creative director of TIME magazine, among others.

The world's largest online university

TECH is the world's largest online university. We are the largest educational institution, with the best and widest digital educational catalog, one hundred percent online and covering most areas of knowledge. We offer the largest selection of our own degrees and accredited online undergraduate and postgraduate degrees. In total, more than 14,000 university programs, in ten different languages, making us the largest educational institution in the world.

The most complete syllabuses on the university scene

TECH offers the most complete syllabuses on the university scene, with programs that cover fundamental concepts and, at the same time, the main scientific advances in their specific scientific areas. In addition, these programs are continuously updated to guarantee students the academic vanguard and the most demanded professional skills. and the most in-demand professional competencies. In this way, the university's qualifications provide its graduates with a significant advantage to propel their careers to success.

A unique learning method

TECH is the first university to use Relearning in all its programs. This is the best online learning methodology, accredited with international teaching quality certifications, provided by prestigious educational agencies. In addition, this innovative academic model is complemented by the "Case Method", thereby configuring a unique online teaching strategy. Innovative teaching resources are also implemented, including detailed videos, infographics and interactive summaries.

The official online university of the NBA

TECH is the official online university of the NBA. Thanks to our agreement with the biggest league in basketball, we offer our students exclusive university programs, as well as a wide variety of educational resources focused on the business of the league and other areas of the sports industry. Each program is made up of a uniquely designed syllabus and features exceptional guest hosts: professionals with a distinguished sports background who will offer their expertise on the most relevant topics.

Leaders in employability

TECH has become the leading university in employability. Ninety-nine percent of its students obtain jobs in the academic field they have studied within one year of completing any of the university's programs. A similar number achieve immediate career enhancement. All this thanks to a study methodology that bases its effectiveness on the acquisition of practical skills, which are absolutely necessary for professional development.

Google Premier Partner

The American technology giant has awarded TECH the Google Premier Partner badge. This award, which is only available to 3% of the world's companies, highlights the efficient, flexible and tailored experience that this university provides to students. The recognition not only accredits the maximum rigor, performance and investment in TECH's digital infrastructures, but also places this university as one of the world's leading technology companies.

The top-rated university by its students

Students have positioned TECH as the world's top-rated university on the main review websites, with a highest rating of 4.9 out of 5, obtained from more than 1,000 reviews. These results consolidate TECH as the benchmark university institution at an international level, reflecting the excellence and positive impact of its educational model.

03

Syllabus

This innovative university program offers a detailed analysis of prognostic factors and therapeutic strategies in rare tumors, with a special focus on resistance mechanisms and second-line treatments. It also provides in-depth study of Nasopharyngeal Cancer, Salivary Gland Tumors, and even Melanomas. This will enable professionals to enhance their advanced skills in diagnosis, multidisciplinary treatment, and management of targeted therapies. As such, physicians will be able to personalize treatments based on the individual needs of patients and optimize their overall long-term well-being.

You will master cutting-edge bioinformatics tools to perform genetic analyses and characterize Tumors of Unknown Primary"

Module 1. The Reality of Orphan, Agnostic, and Cancer of Unknown Primary Tumors

1.1. Low Incidence Cancer
- 1.1.1. Uncommon, Rare and Ultra-rare Cancers
- 1.1.2. Orphan Tumors
- 1.1.3. Agnostic Tumors
- 1.1.4. Cancer of Unknown Primary

1.2. Epidemiology of Uncommon Cancer
- 1.2.1. Incidence and Prevalence of Uncommon Tumors
- 1.2.2. Trend of Rates at European Level

1.3. Survival Rates for Uncommon Tumors
- 1.3.1. Survival Data at European Level
- 1.3.2. Causes of Differences in Survival

1.4. Precision Medicine and Rare Tumors
- 1.4.1. Precision Medicine
- 1.4.2. Rationale for Precision Medicine in Uncommon Tumors
- 1.4.3. Clinical Experiences with Precision Medicine for Uncommon Tumors
- 1.4.4. Application of Genomics in the Diagnosis and Treatment of Uncommon Tumors

1.5. Models of Care for Uncommon Tumors
- 1.5.1. Tumor Registry
- 1.5.2. Expert Networks
- 1.5.3. Reference Units
- 1.5.4. *Tumor Board Review*

1.6. Role of the Biobank in Clinical Research
- 1.6.1. Biobanks
- 1.6.2. Legislative Regulation
- 1.6.3. The Biobank in the Management of Uncommon Tumors

1.7. Methodological Aspects of Clinical Research in Uncommon Tumors
- 1.7.1. Importance of Clinical Research in Uncommon Tumors
- 1.7.2. Research Difficulties in Uncommon Tumors
- 1.7.3. New Models of Clinical Trials
- 1.7.4. Bayesian Inference
- 1.7.5. Nanoscience Applied to Rare Tumors or Bioinformatics and New Mathematical Models for the Study of Rare Tumors

1.8. Legislation
- 1.8.1. European Framework
- 1.8.2. Regulatory Agencies

1.9. Access to Drugs
- 1.9.1. Access to Drugs
- 1.9.2. Off Label Therapies

1.10. Psychological and Social Aspects of Low-Incidence Tumors
- 1.10.1. Psychological Aspects of this Spectrum of Pathology
- 1.10.2. Social Issues Affecting the Uncommon Cancer Patient

Module 2. Molecular Biology Tools for the Agnostic Approach to Rare Cancer

2.1. Concepts of Molecular Oncology
- 2.1.1. Genetic Concepts
- 2.1.2. Epigenetic Concepts
- 2.1.3. crDNA Concepts
- 2.1.4. RNA Concepts

2.2. Tumor DNA Study I. Solid Biopsy
- 2.2.1. Genome
- 2.2.2. Exome
- 2.2.3. Sequencing Panels

2.3. Study of Tumor DNA II Fluid Biopsy
- 2.3.1. Available Platforms
- 2.3.2. Current Applications

2.4. Study of Germline DNA
- 2.4.1. Variants and Polymorphisms
- 2.4.2. Germline Alterations

2.5. Study of Messenger RNA
- 2.5.1. Transcriptome
- 2.5.2. Sequencing Panels (Nanostring)
- 2.5.3. Single Cell RNA

2.6. Epigenetics I. Methylome and Methylation Panels
- 2.6.1. Methyloma
- 2.6.2. Methylation Panels

2.7. Epigenetics II Non-Coding RNA, Chromatin Modifications
- 2.7.1. Long Non-Coding RNA
- 2.7.2. MicroRNA
- 2.7.3. Chromatin Remodeling

2.8. Functional Models I. Drug Sensing in Primary Cell Culture and Organoids

2.9. Molecular Biology in Immuno-Oncology I
- 2.9.1. Tumor Mutation Burden
- 2.9.2. Neoantigens
- 2.9.3. Microbiota
- 2.9.4. Adoptive Cell Therapy

2.10. Molecular Biology in Immuno-Oncology II. Functional Models
- 2.10.1. Coculture of Lymphocytes
- 2.10.2. Humanized Murine Methods

Module 3. Pleural, Mediastinal and Chest Wall Tumors: Lung Cancer As a Paradigm of New Rare Tumors. Head and Neck Cancer

3.1. Tumors of Pleural Origin: Mesothelioma
- 3.1.1. Introduction and Epidemiology
- 3.1.2. Etiology and Pathogenesis
- 3.1.3. Clinical Presentation
- 3.1.4. Diagnosis and Staging
- 3.1.5. Prognostic Factors
- 3.1.6. Treatment and Recommendations (Guidelines/Consensus)
- 3.1.7. Future Perspectives

3.2. Mediastinal Tumors: Thymoma and Thymic Carcinoma
- 3.2.1. Introduction and Epidemiology
- 3.2.2. Etiology and Pathogenesis
- 3.2.3. Clinical Presentation
- 3.2.4. Diagnosis and Staging
- 3.2.5. Prognostic Factors
- 3.2.6. Treatment and Recommendations (Guidelines/Consensus)
- 3.2.7. Future

3.3. Chest Wall Tumors
- 3.3.1. Introduction and Epidemiology
- 3.3.2. Etiology and Pathogenesis
- 3.3.3. Clinical Presentation
- 3.3.4. Diagnosis and Classification
- 3.3.5. Prognostic Factors
- 3.3.6. Treatment and Recommendations
- 3.3.7. Future

3.4. Pulmonary Neuroendocrine Tumors (NETs): Typical Carcinoid, Atypical Carcinoid, and Large Cell Carcinoma
- 3.4.1. Introduction and Epidemiology
- 3.4.2. Etiology and Pathogenesis
- 3.4.3. Clinical Presentation
- 3.4.4. Diagnosis and Classification
- 3.4.5. Prognostic Factors
- 3.4.6. Treatment and Recommendations
- 3.4.7. Future

3.5. Lung Cancer as a Paradigm for Personalized Medicine: Diagnostic Techniques and the Role of Liquid Biopsy
- 3.5.1. Introduction
- 3.5.2. Sample Types According to Diagnostic Approach
- 3.5.3. Sample Handling Optimization
- 3.5.4. Response Time and Report Characteristics
- 3.5.5. Tumor Heterogeneity: Role of Liquid Biopsy
- 3.5.6. Molecular Diagnostic Techniques: IHQ, FISH, RT-PCR, NGS
- 3.5.7. Guide Recommendations

3.6. Mutations: EGFR, BRAF, MET, KRAS
- 3.6.1. Introduction: Epidemiology, Patient Profile, Diagnostic Techniques and Brain Disease
- 3.6.2. Prognostic Factors
- 3.6.3. First-Line Targeted Therapy
- 3.6.4. Resistance Mechanisms
- 3.6.5. Second-Line Therapy and Successive Lines
- 3.6.6. Role of Chemotherapy +/- Immunotherapy
- 3.6.7. Future

3.7. Translocations: ALK, ROS-1
- 3.7.1. Introduction: Epidemiology, Patient Profile, Diagnostic Techniques and Brain Disease
- 3.7.2. Prognostic Factors
- 3.7.3. First-Line Targeted Therapy
- 3.7.4. Resistance Mechanisms
- 3.7.5. Second-Line Therapy and Successive Lines
- 3.7.6. Role of Chemotherapy +/- Immunotherapy
- 3.7.7. Future

3.8. Rearrangements/Amplifications: NTRK, RET, MET, HER-2
- 3.8.1. Introduction: Epidemiology, Patient Profile, Diagnostic Techniques and Brain Disease
- 3.8.2. Prognostic Factors
- 3.8.3. First-Line Targeted Therapy
- 3.8.4. Resistance Mechanisms
- 3.8.5. Second-Line Therapy and Successive Lines
- 3.8.6. Role of Chemotherapy +/- Immunotherapy
- 3.8.7. Future

3.9. Nasopharyngeal Carcinoma and Salivary Gland Tumors. Nasal and Paranasal Sinus Tumors
- 3.9.1. Nasopharyngeal Carcinoma
  - 3.9.1.1. Introduction
  - 3.9.1.2. Epidemiological Data
  - 3.9.1.3. Etiology and Etiopathogenesis
  - 3.9.1.4. Clinical Manifestations
  - 3.9.1.5. Diagnostic Methods and Extension Diagnosis
  - 3.9.1.6. Multidisciplinary Treatment
- 3.9.2. Salivary Gland Tumors
  - 3.9.2.1. Major Salivary Gland Tumors
  - 3.9.2.2. Minor Salivary Gland Tumors
- 3.9.3. Nasal and Paranasal Sinus Tumors
  - 3.9.3.1. Epidemiology
  - 3.9.3.2. Etiopathogeny, Histology and Natural History
  - 3.9.3.3. Clinical, Diagnostic and Staging
  - 3.9.3.4. Treatment

3.10. Melanomas, Sarcomas and Lymphoproliferative Syndromes of the Head and Neck. Rare Tumors. Ameloblastoma. Neuroendocrine Head and Neck Tumors
- 3.10.1. Head and Neck Melanoma
  - 3.10.1.1. Etiologic, Epidemiologic and Clinical Factors
  - 3.10.1.2. Diagnostic and Therapeutic Aspects
  - 3.10.1.3. Special Presentations of Head and Neck Melanoma
- 3.10.2. Head and Neck Sarcomas
  - 3.10.2.1. Etiopathogenesis and Epidemiology
  - 3.10.2.2. Clinical Aspects
  - 3.10.2.3. Diagnosis
  - 3.10.2.4. Therapeutic Aspects
- 3.10.3. Lymphoproliferative Head and Neck Syndromes
  - 3.10.3.1. Etiological Factors
  - 3.10.3.2. Staging Procedures
  - 3.10.3.3. Clinical Scheme of Lymphoid System Neoplasms
- 3.10.4. Dental Tumors
  - 3.10.4.1. Odontogenic Tumor Classification
- 3.10.5. Ameloblastoma
- 3.10.6. Neuroendocrine Head and Neck Tumors
  - 3.10.6.1. Neuroendocrine Carcinomas of Epithelial Origin
  - 3.10.6.2. Atypical Carcinoid
  - 3.10.6.3. Small Cell Neuroendocrine Carcinoma
  - 3.10.6.4. Large Cell Neuroendocrine Carcinoma
  - 3.10.6.5. Neuroendocrine Carcinoma of Neural Origin

Module 4. Uncommon Digestive Tumors. Digestive Neuroendocrine Tumors Thyroid Cancer

4.1. Small Intestine Tumors. Appendicular Tumors
- 4.1.1. Small Intestinal Tumors
  - 4.1.1.1. Epidemiology. Risk Factors
  - 4.1.1.2. Pathogenesis, Molecular Profile and Hereditary Syndromes
  - 4.1.1.3. Clinical Characteristics. Histological Subtypes
  - 4.1.1.4. Diagnosis and Staging Prognosis
  - 4.1.1.5. Localized Disease Treatment. Monitoring
  - 4.1.1.6. Treatment of Metastatic Disease
- 4.1.2. Appendicular Tumors
  - 4.1.2.1. Epidemiology
  - 4.1.2.2. Histology Staging
  - 4.1.2.3. Clinical Presentation. Diagnosis
  - 4.1.2.4. Localized Disease Treatment
  - 4.1.2.5. Treatment of Metastatic Disease
  - 4.1.2.6. Pseudomyxoma Peritoneum

4.2. Cancer of the Anal Canal
- 4.2.1. Epidemiology. Risk Factors
- 4.2.2. HPV, Genotypes Molecular Pathogenesis
- 4.2.3. Pathologic Anatomy. Staging
- 4.2.4. Clinical Presentation. Diagnosis
- 4.2.5. Treatment of Localized Disease. Monitoring
- 4.2.6. Treatment of Metastatic Disease. Immunotherapy

4.3. Tumors of the Liver and Intrahepatic Bile Ducts. Neoplasms of the Gallbladder and Extrahepatic Bile Ducts
- 4.3.1. Hepatocellular Carcinoma
  - 4.3.1.1. Epidemiological Aspects
  - 4.3.1.2. Diagnostic Process
  - 4.3.1.3. Staging
  - 4.3.1.4. Local Disease Management: Transplantation vs. Resection
  - 4.3.1.5. Local Disease Management: Ablative Techniques
  - 4.3.1.6. Management of Locally Advanced Disease
    - 4.3.1.6.1. Radioembolization
    - 4.3.1.6.2. Transarterial Chemoembolization
    - 4.3.1.6.3. Radiotherapy
  - 4.3.1.7. Treatment of Metastatic Disease
- 4.3.2. Biliary Tract Tumours
  - 4.3.2.1. Characterization of the Three Entities that Make Up the Group
  - 4.3.2.2. Epidemiological Aspects
  - 4.3.2.3. Risk Factors
  - 4.3.2.4. Clinical Expressivity
  - 4.3.2.5. Diagnostic Aspects
  - 4.3.2.6. Unresectability Criteria
  - 4.3.2.7. Histological Aspects
  - 4.3.2.8. Molecular Aspects. Molecular Classification
  - 4.3.2.9. Described Genomic Alterations
  - 4.3.2.10. Treatment of Localized Disease
    - 4.3.2.10.1. Surgery
    - 4.3.2.10.2. Adjuvant Criteria
    - 4.3.2.10.3. Monitoring
  - 4.3.2.11. Treating Advanced Stages of the Disease
    - 4.3.2.11.1. Treatment of Locally Advanced Disease
    - 4.3.2.11.2. Treatment of Metastatic Disease
  - 4.3.2.12. Monitoring

4.4. Gastrointestinal Stromal Tumors (GIST)
- 4.4.1. Clinical and Epidemiological Aspects
- 4.4.2. Diagnostic Process of GIST
  - 4.4.2.1. Radiology
  - 4.4.2.2. Histology
  - 4.4.2.3. Molecular Biology
- 4.4.3. Treatment of Localized Disease
  - 4.4.3.1. Surgical Aspects
  - 4.4.3.2. Prognostic Factors after Resection
  - 4.4.3.3. Adjuvant Treatment
  - 4.4.3.4. Neoadjuvant Therapy

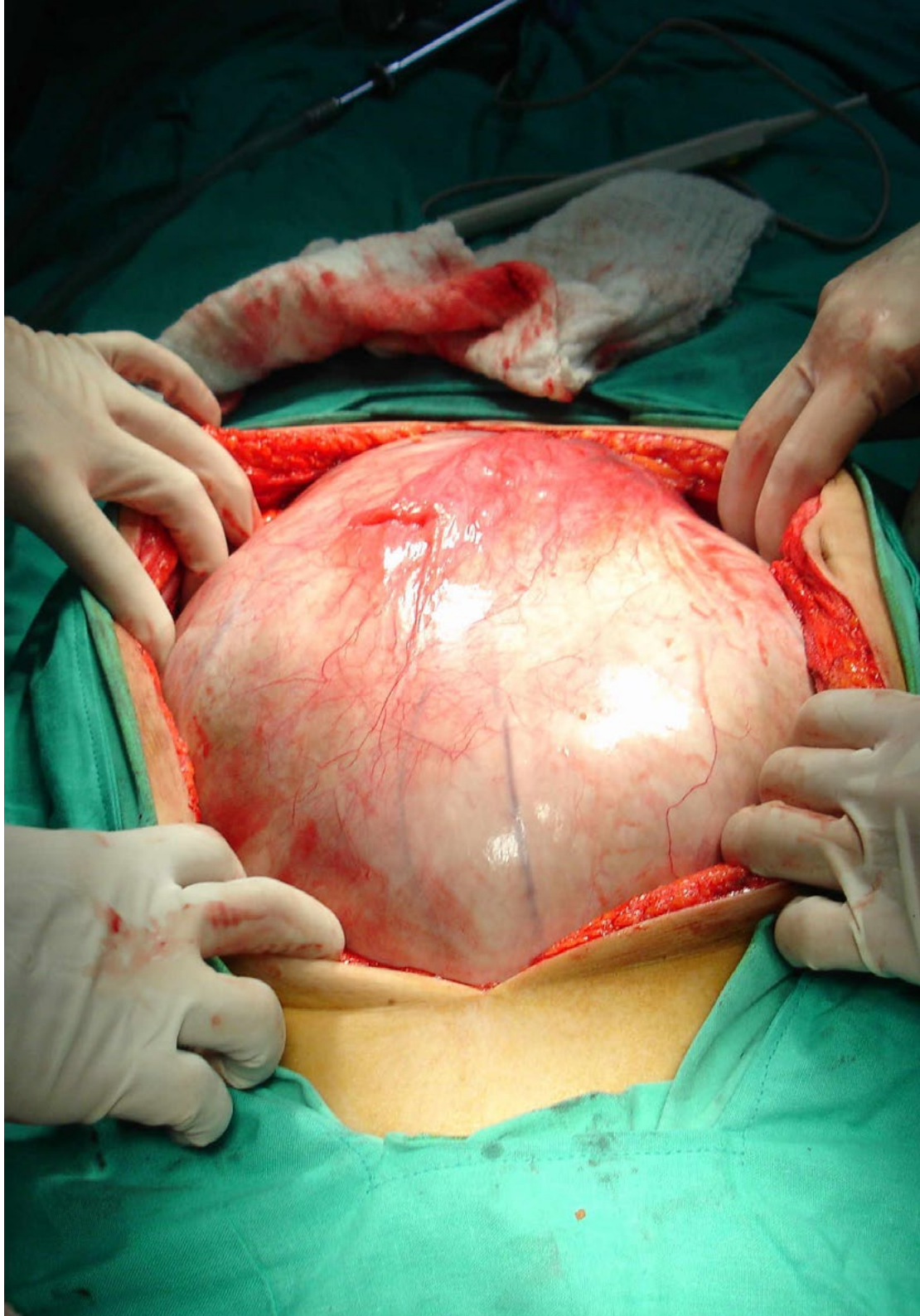
4.4.4. Treating Advanced Stages of the Disease
4.4.4.1. Surgery in the Context of Advanced Disease
4.4.4.2. Systemic Treatment
4.4.4.3. Monitoring

4.5. Neuroendocrine Tumors: Small Intestinal Tumors
4.5.1. Epidemiology
4.5.2. Pathologic Anatomy. Histological Degree. Ki67 and Mitotic Index
4.5.3. Molecular Factors Biomarkers
4.5.4. Clinical Presentation. Carcinoid Syndrome
4.5.5. Diagnosis and Staging Prognosis
4.5.6. Localized Disease Treatment Monitoring
4.5.7. Treatment of Metastatic Disease Treatment of Hormonal Hypersecretion

4.6. Neuroendocrine Tumors: Pancreatic Tumors
4.6.1. Epidemiology
4.6.2. Pathologic Anatomy. Histological Degree
4.6.3. Molecular Factors Biomarkers
4.6.4. Clinical Presentation. Carcinoid Syndrome
4.6.5. Diagnosis and Staging Prognosis
4.6.6. Localized Disease Treatment Monitoring
4.6.7. Treatment of Metastatic Disease. Treatment of Hormonal Hypersecretion Syndromes
4.6.8. Advanced Line Treatment

4.7. Thyroid Cancer
4.7.1. Introduction
4.7.2. Incidence and Epidemiology
4.7.3. Clinical and Diagnostic Aspects
4.7.4. General Aspects of Treatment
4.7.5. Guidelines Recommendations and Level of Evidence

4.8. Differentiated Thyroid Cancer
4.8.1. Diagnosis, Pathological Anatomy and Molecular Biology
4.8.2. Staging and Risk Assessment
4.8.3. Primary Tumor Management
4.8.4. Management of Advanced Disease
4.8.5. Follow-Up and Long Survivors



4.9. Anaplastic Thyroid Cancer
- 4.9.1. Diagnosis, Pathological Anatomy and Molecular Biology
- 4.9.2. Staging and Risk Assessment
- 4.9.3. Primary Tumor Management
- 4.9.4. Management of Advanced Disease
- 4.9.5. Follow-Up and Long Survivors

4.10. Medullary Thyroid Cancer
- 4.10.1. Diagnosis, Pathological Anatomy and Molecular Biology
- 4.10.2. Staging and Risk Assessment
- 4.10.3. Primary Tumor Management
- 4.10.4. Management of Advanced Disease
- 4.10.5. Follow-Up and Long Survivors

Module 5. Uncommon Gynecologic Tumors. Rare Breast Tumors. Genitourinary Oncology of Uncommon Tumors

5.1. Rare Ovarian Cancer
- 5.1.1. Sex Cord Tumors
- 5.1.2. Granulosa Cell Tumor
- 5.1.3. Female Germ Cell Tumors
- 5.1.4. Ovary Sarcomas
- 5.1.5. Hereditary Ovarian Cancer

5.2. Uncommon Uterine Cancer
- 5.2.1. Adenosarcoma
- 5.2.2. Mixed Mullerian Tumor
- 5.2.3. Uterine Sarcoma
- 5.2.4. Hereditary Endometrial Carcinoma

5.3. Rare Cervix Cancer
- 5.3.1. Adenocarcinoma
- 5.3.2. Non-HPV-Associated Cervical Cancer
- 5.3.3. Cervical Sarcomas

5.4. Other Uncommon Tumors of the Gynecological Area
- 5.4.1. Vulvar Cancer
- 5.4.2. Vaginal Cancer

5.5. Rare Breast Tumors
- 5.5.1. Classification of Rare Breast Tumors
- 5.5.2. Diagnostic and Therapeutic Aspects

5.6. Germ Cell Tumors
- 5.6.1. General Aspects: Etiology and Epidemiology
- 5.6.2. Clinical Aspects and Classification
- 5.6.3. Diagnostic and Therapeutic Aspects for Germinal Tumors

5.7. Low Incidence Prostate Tumors
- 5.7.1. Adenocarcinoma with Histological Variants
  - 5.7.1.1. Adenocarcinoma NOS
  - 5.7.1.2. Adenocarcinoma of the Acinar Cells
  - 5.7.1.3. Mucinous Adenocarcinoma
  - 5.7.1.4. Signet Ring Adenocarcinoma
  - 5.7.1.5. Adenocarcinoma with Neuroendocrine Differentiation
  - 5.7.1.6. Oxyphilic Adenocarcinoma
  - 5.7.1.7. Spindle Cell Adenocarcinoma
  - 5.7.1.8. Lymphoepithelial Carcinoma
- 5.7.2. Squamous Cell Carcinoma with Histologic Variants
  - 5.7.2.1. Squamous Carcinoma
  - 5.7.2.2. Adenosquamous Carcinoma
- 5.7.3. Invasive Ductal Carcinoma
  - 5.7.3.1. Cribriform Carcinoma
  - 5.7.3.2. Solid Carcinoma NOS
  - 5.7.3.3. Papillary Adenocarcinoma NOS
- 5.7.4. Transitional Cell Carcinoma
- 5.7.5. Salivary Gland-Like Tumors
  - 5.7.5.1. Adenoid Cystic Carcinoma
  - 5.7.5.2. Basaloid Carcinoma
  - 5.7.5.3. Basal Cell Carcinoma
- 5.7.6. New Molecular Array in Prostate Cancer

5.8. Uncommon Tumors of the Bladder and Upper Urinary Tract
- 5.8.1. Transitional Cell Carcinoma
- 5.8.2. Squamous Carcinoma with Variants
- 5.8.3. Adenocarcinoma with Variants
- 5.8.4. Salivary Gland-Like Tumors
- 5.8.5. Molecular Subtypes of Bladder Cancer

5.9. Uncommon Renal Tumors
- 5.9.1. General Aspects of Non-Clear Cell Renal Cancers
- 5.9.2. Epidemiology and Etiopathogenesis
- 5.9.3. Classification of Non-Clear Cell Renal Tumors
- 5.9.4. Diagnosis and Treatment

5.10. Penile Cancer
- 5.10.1. Epidemiology and Etiopathogenesis
- 5.10.2. Clinical and Diagnostic Aspects
- 5.10.3. Penile Cancer Staging
- 5.10.4. Localized Disease
- 5.10.5. Locally Advanced and Metastatic Disease

Module 6. Hereditary Syndromes: from Biology to Clinical Application. Pediatric Tumors and Pediatric Tumors Occurring in Adults

6.1. Hereditary Predisposition to Endocrine and Neuroendocrine Tumors
- 6.1.1. Clinical Aspects
- 6.1.2. Molecular Aspects

6.2. Familial Melanoma and Genodermatosis
- 6.2.1. General Aspects
- 6.2.2. Clinical Aspects
- 6.2.3. Molecular Aspects

6.3. Neurofibromatosis. Li Fraumeni Syndrome
- 6.3.1. General Aspects of Neurofibromatosis
- 6.3.2. Clinical Aspects
- 6.3.3. Molecular Aspects
- 6.3.4. General Aspects of Li Fraumeni Syndrome
- 6.3.5. Clinical Aspects
- 6.3.6. Molecular Aspects

6.4. Hereditary Syndromes in Children
- 6.4.1. General Aspects
- 6.4.2. Clinical Aspects
- 6.4.3. Molecular Aspects

6.5. General Aspects of Pediatric Cancer
- 6.5.1. Epidemiology and Etiopathogenesis
- 6.5.2. Clinical Aspects of Pediatric Cancer
- 6.5.3. Diagnostic and Therapeutic Aspects
- 6.5.4. Molecular Biology and its Application to Pediatric Cancer

6.6. Intraocular Tumors
- 6.6.1. Medulloepithelioma
- 6.6.2. Retinoblastoma

6.7. Ocular Tumors in Children
- 6.7.1. Orbital Tumors
  - 6.7.1.1. Rhabdomyosarcoma
  - 6.7.1.2. Pleomorphic Adenoma of the Lacrimal Gland
  - 6.7.1.3. Orbital Metastases
- 6.7.2. Intraocular Tumors
  - 6.7.2.1. Rhabdomyosarcoma
  - 6.7.2.2. Pleomorphic Adenoma of the Lacrimal Gland

6.8. Bone, Germ and Other Pediatric Tumors
- 6.8.1. Ewing Sarcoma
- 6.8.2. Germ Cell Tumors
- 6.8.3. Other Pediatric Tumors

6.9. Palliative Care for Children
- 6.9.1. Peculiar Aspects of PC for Children with Cancer

6.10. Pediatric Tumors in Adults
- 6.10.1. General Aspects of Pediatric Tumors in Adults
- 6.10.2. Classification of Development Tumors
- 6.10.3. Diagnostic Aspects
- 6.10.4. Treatment Difficulties
- 6.10.5. New Approaches in the Management of Pediatric Tumors Occurring in Adults: New Methodological Designs

Module 7. Musculoskeletal Tumors. Epithelial Cancer. Central Nervous System Tumors. Ocular Tumors

7.1. Bone and Soft Tissue Sarcomas: Classification, Characteristics, and Diagnostic Therapeutic Approach
- 7.1.1. General Information, Epidemiology
- 7.1.2. Etiopathogenesis and Classification
- 7.1.3. Clinical Aspects
- 7.1.4. Diagnostic and Therapeutic Aspects

7.2. Soft Tissue Sarcomas
- 7.2.1. Liposarcomas
- 7.2.2. Rhabdomyosarcoma
- 7.2.3. Leiomyosarcoma
- 7.2.4. Synovial Sarcoma
- 7.2.5. Angiosarcoma
- 7.2.6. Lymphangiosarcoma
- 7.2.7. Malignant Peripheral Nerve Sheath Tumor
- 7.2.8. Specific Soft Tissue Sarcomas
  - 7.2.8.1. Complex Karyotype Sarcomas
  - 7.2.8.2. Translocation-Specific Subtypes
  - 7.2.8.3. Developmental Sarcomas
  - 7.2.8.4. Alveolar Soft Tissue Sarcoma
  - 7.2.8.5. Clear Cell Sarcoma
  - 7.2.8.6. PEComa
  - 7.2.8.7. Solitary Fibrous Tumor
  - 7.2.8.8. Inflammatory Myofibroblastic Tumor
  - 7.2.8.9. Desmoplastic Round Cell Tumor
  - 7.2.8.10. Mesenchymal Tumors with Locally Aggressive Behavior

7.3. Skeletal Sarcomas
- 7.3.1. Chondrosarcoma
- 7.3.2. Fibrosarcoma
- 7.3.3. Clear Cell Sarcoma
- 7.3.4. Chordoma

7.4. Visceral Sarcomas
- 7.4.1. General Aspects of Low-Incidence Visceral Sarcomas
- 7.4.2. Visceral Sarcoma Classification
- 7.4.3. Diagnostic and Therapeutic Aspects
- 7.4.4. Molecular Aspects

7.5. Central Nervous System Tumors. Classification, Characteristics and Therapeutic Diagnostic Approach
- 7.5.1. Classification
- 7.5.2. Epidemiology and Etiopathogenesis
- 7.5.3. General Clinical Features
- 7.5.4. Diagnostic Algorithm
- 7.5.5. Therapeutic Approach

7.6. Central Nervous System Tumors: Oligodendrogliomas and Diffuse Astrocytic Tumors. Ependymal Tumors. Choroid Plexus Tumors. Neuronal and Mixed Glial-Neuronal Tumors
- 7.6.1. Oligodendrogliomas and Diffuse Astrocytic Tumors
- 7.6.2. Ependymal Tumors
- 7.6.3. Choroid Plexus Tumors
- 7.6.4. Neuronal and Mixed Glial-Neuronal Tumors

7.7. Pineal Region Tumors. Embryonal Tumors. Central Nervous System Lymphomas. Germ Cell Tumors. Selar Region Tumors. Miscellaneous
- 7.7.1. Pineal Region Tumors
- 7.7.2. Embryonal Tumors
- 7.7.3. Central Nervous System Lymphomas
- 7.7.4. Germ Cell Tumors
- 7.7.5. Selar Region Tumors
- 7.7.6. Miscellaneous

7.8. Malignant Skull Base Tumors: Craniopharyngioma and Solitary Fibrous Tumor/ Hemangiopericytoma
- 7.8.1. Chordomas
- 7.8.2. Chondrosarcomas
- 7.8.3. Craneofaringioma
- 7.8.4. Solitary Fibrous Tumor: Hemangiopericytoma

7.9. Skin and Appendage Tumours
- 7.9.1. Classification, Characteristics and Therapeutic Diagnostic Approach
- 7.9.2. Tumors Originating in Benign Structures
  - 7.9.2.1. Porocarcinoma
  - 7.9.2.2. Hydradenocarcinoma
  - 7.9.2.3. Spiradenocarcinoma
  - 7.9.2.4. Cylindrocarcinoma
- 7.9.3. Analogous Glandular Tumors
  - 7.9.3.1. Adenoid Cystic Carcinoma
  - 7.9.3.2. Secretor Carcinoma
  - 7.9.3.3. Apocrine Carcinoma
  - 7.9.3.4. Cribriform Carcinoma
  - 7.9.3.5. Malignant Mixed Tumor
  - 7.9.3.6. Malignant Myoepithelioma
- 7.9.4. Hair Follicular Differentiation Tumors
  - 7.9.4.1. Trichilemmal Carcinoma
  - 7.9.4.2. Pilomatrical Carcinoma
- 7.9.5. Tumors Originating in the Facial Area
  - 7.9.5.1. Mucinous Carcinoma
  - 7.9.5.2. Histiocytoid Carcinoma
  - 7.9.5.3. Endocrine Mucin-Producing Sweat Gland Carcinoma
- 7.9.6. Cutaneous Sarcoma
  - 7.9.6.1. Atypical Fibroxanthoma
  - 7.9.6.2. Angiosarcoma
  - 7.9.6.3. Dermatofibrosarcoma Protuberans
  - 7.9.6.4. Non-HIV Kaposi's Sarcoma, Other Sarcomas
- 7.9.7. Miscellaneous
  - 7.9.7.1. Microcystic Adrenal Carcinoma
  - 7.9.7.2. Adenosquamous Carcinoma
  - 7.9.7.3. Adenocarcinoma

7.10. Eye Tumors in Adults
- 7.10.1. Eyelid Tumors
- 7.10.2. Basal Cell Carcinoma
- 7.10.3. Epidermoid Carcinoma
- 7.10.4. Keratoacanthoma
- 7.10.5. Lentigo Maligna Melanoma
- 7.10.6. Conjunctival Tumors
- 7.10.7. Conjunctival Squamous Neoplasia
- 7.10.8. Conjunctival Melanoma
- 7.10.9. Anterior Uveal Melanocytic Tumors: Iris Melanoma
- 7.10.10. Posterior Uveal Melanocytic Tumors: Choroidal Melanoma
- 7.10.11. Choroidal Metastases
- 7.10.12. Orbital Metastases

Module 8. Agnostic Tumors

8.1. Concept of Agnostic Treatment: New Entities in Oncology
- 8.1.1. Concepts
- 8.1.2. Agency-Approved Agnostic Treatments
- 8.1.3. Agnostic Treatments under Development

8.2. Neurotrophic Tyrosine Receptor Kinase (NTRK) Family
- 8.2.1. NTRK Structure and Function
- 8.2.2. Algorithm for Identifying Patients with TRK Fusions
- 8.2.3. Clinical Spectrum of NTRK-Fused Tumors

8.3. Treatment with NTRK Inhibitors
- 8.3.1. General Aspects
- 8.3.2. Indications
- 8.3.3. Pivotal Test Results
- 8.3.4. Results in Clinical Practice
- 8.3.5. Toxicity of NTRK Inhibitors

8.4. Tumors with Microsatellite Instability
- 8.4.1. Significance of Microsatellite Instability
- 8.4.2. Algorithm for Identifying Patients with Microsatellite Instability
- 8.4.3. Clinical Spectrum of Unstable Tumors

8.5. Treatment of Tumors with Microsatellite Instability
- 8.5.1. General Aspects
- 8.5.2. Indications
- 8.5.3. Pivotal Test Results
- 8.5.4. Results in Clinical Practice

8.6. Towards Agnostic Treatment of Thoracic and Head Neck Tumors
- 8.6.1. General Aspects
- 8.6.2. Indications and Results
- 8.6.3. Toxicity

8.7. Towards Agnostic Treatment in Digestive Tumors
- 8.7.1. General Aspects
- 8.7.2. Indications and Results
- 8.7.3. Toxicity

8.8. Towards Agnostic Treatment in Urologic and Gynecologic Tumors
- 8.8.1. General Aspects
- 8.8.2. Indications and Results
- 8.8.3. Toxicity

8.9. Towards Agnostic Treatment in CNS Tumors
- 8.9.1. General Aspects
- 8.9.2. Indications and Results
- 8.9.3. Toxicity

8.10. The Development of Agnostic Treatment in Other Tumors
- 8.10.1. General Aspects
- 8.10.2. Indications and Results
- 8.10.3. Toxicity

Module 9. Cancer of Unknown Primary

9.1. Introduction and Epidemiology of Cancers of Unknown Primary
- 9.1.1. Incidence
- 9.1.2. Prevalence
- 9.1.3. Prognosis
- 9.1.4. Risk Factors

9.2. Clinical Spectrum of the Disease
- 9.2.1. Classification
- 9.2.2. Subgroups of Patients According to their Presentation

9.3. Anatomopathological Aspects of the Disease
- 9.3.1. General Considerations
- 9.3.2. Histology
- 9.3.3. Recommended Immunohistochemical Profile

9.4. Diagnosis of Cancers of Unknown Primary
- 9.4.1. Recommended Diagnostic Tests
- 9.4.2. Role of PET-CT
- 9.4.3. Diagnostic Algorithm

9.5. Cancer of Unknown Primary in the Molecular Era
- 9.5.1. Paradigm Shift
- 9.5.2. Molecular Profiles Oriented to Anatomical Origin
- 9.5.3. Molecular Profiling Aimed at Identifying Genomic Alterations

9.6. Classic Treatment for Cancers of Unknown Primary
- 9.6.1. Good Subgroup Prognosis
- 9.6.2. Poor Subgroup Prognosis

9.7. Targeted Therapy in the Molecular Era
- 9.7.1. Paradigm Shift: From Clinical to Molecular Biology
- 9.7.2. Molecular Profiles Oriented to Tumor Origin
- 9.7.3. Molecular Profiles Oriented to Therapeutic Targets

9.8. Clinical Trials: New Designs

9.9. Role of Tumor Registry. Clinical and Molecular Committees
- 9.9.1. Tumor Registry
- 9.9.2. Biobanks
- 9.9.3. Clinical and Molecular Committees

9.10. Guide Recommendations

Module 10. Supportive Care, Management of Antineoplastic Treatment Toxicity, Palliative Care, and Care of Long-Term Survivors with Low-Incidence Tumors

10.1. Increased Survival and Quality of Life Associated with Supportive Care in Cancer Patients
- 10.1.1. Quality of Life Evaluation in Oncology
- 10.1.2. Impact of Supportive Care Treatment on Quality of Life
- 10.1.3. Impact of Supportive Care Treatment on Survival

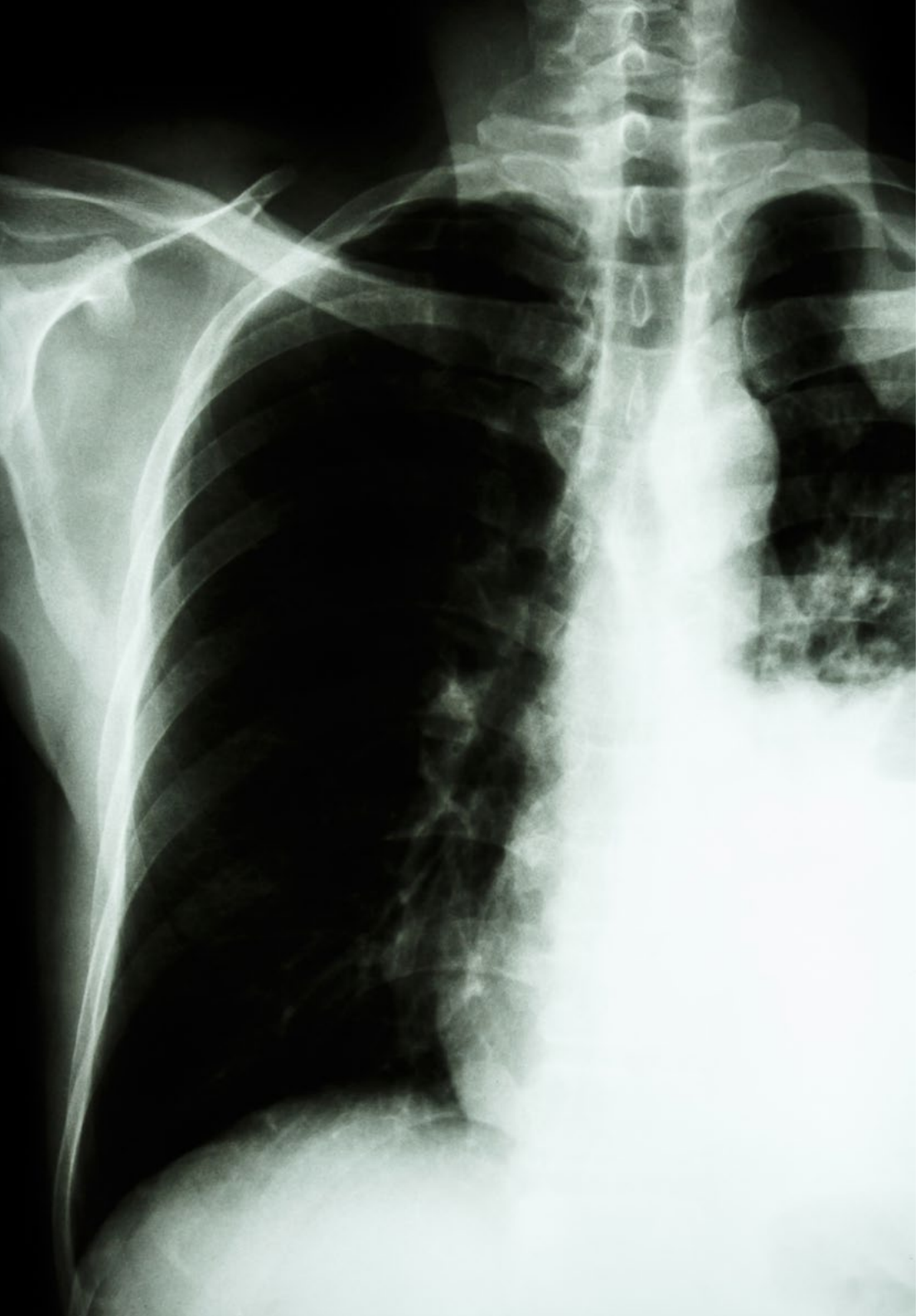
10.2. Treatment of Oncologic Pain and its Associated Symptoms
- 10.2.1. Baseline Pain in Cancer Patients
- 10.2.2. Incidental Pain in Cancer Patients
- 10.2.3. Types of Pain: Somatic, Visceral and Neuropathic
- 10.2.4. Diagnostic Pain Assessment
- 10.2.5. Pain Treatment 1st and 2nd Step
- 10.2.6. Opioid Treatment: Opioid Rotation
- 10.2.7. Opioid Treatment Toxicity
- 10.2.8. Adjuvant Drugs
- 10.2.9. Intervention Techniques
- 10.2.10. Non-Pharmacological Techniques

10.3. Antineoplastic Treatment Toxicity: Chemotherapy
- 10.3.1. Chemotherapy Mechanism of Action
- 10.3.2. Chemotherapy Toxicity Assessment
- 10.3.3. Most Common Toxicities
  - 10.3.3.1. Digestive Toxicity
  - 10.3.3.2. Skin and Mucosal Toxicity
  - 10.3.3.3. Hematological Toxicity
  - 10.3.3.4. Neurotoxicants
  - 10.3.3.5. Cardiotoxicity
  - 10.3.3.6. Nephrotoxicity

10.4. Antineoplastic Treatment Toxicity: Targeted Therapy
- 10.4.1. Mechanism of Action of Targeted Therapies
- 10.4.2. Toxicity Assessment of Targeted Therapy
- 10.4.3. Most Common Toxicities
  - 10.4.3.1. Digestive Toxicity
  - 10.4.3.2. Skin and Mucosal Toxicity
  - 10.4.3.3. Hematological Toxicity
  - 10.4.3.4. Toxic Hypertension Management
  - 10.4.3.5. Cardiotoxicity
  - 10.4.3.6. Thrombotic Events

10.5. Antineoplastic Treatment Toxicity: Immunotherapy
- 10.5.1. Immunotherapy Mechanism of Action
- 10.5.2. Immunotherapy Toxicity Assessment
- 10.5.3. Most Common Toxicities
  - 10.5.3.1. Digestive Toxicity
  - 10.5.3.2. Skin and Mucosal Toxicity
  - 10.5.3.3. Respiratory Toxicity
  - 10.5.3.4. Neurological Toxicity
- 10.5.4. Toxicity in Special Populations

10.6. Severe Toxicity of Oncological Treatment: Admission Criteria for Cancer Patients in the ICU
- 10.6.1. Severe Toxicity Spectrum in Patients Treated with Immunotherapy
- 10.6.2. Retreatments after Treatment-Limiting Toxicity
- 10.6.3. Cytokine Storm Syndrome
- 10.6.4. Severe Neurological Toxicity
- 10.6.5. Severe Respiratory Toxicity
- 10.6.6. Aspects Related to Admission to Intensive Care Units in Cancer Patients



10.7. End-of-Life Care. Concepts Associated with Terminal Patients. Palliative Sedation
- 10.7.1. Care Models for Palliative Care Patients
- 10.7.2. Terminal Illness Concept
- 10.7.3. Major End-of-Life Syndromes
- 10.7.4. Agony Diagnosis: Situation in the Final Days
- 10.7.5. Palliative Sedation

10.8. Long-Term Cancer Survivors: Monitoring Programs
- 10.8.1. Introduction and Definition of the Long-Term Cancer Survivor Concept
- 10.8.2. Survival Rates and Estimated Number of Long-Term Cancer Survivors
- 10.8.3. Monitoring Models of Long-Term Cancer Survivors

10.9. Long-Term Cancer Survivors. Most Common Sequelae
- 10.9.1. Identification of Long-Term Survivors' Specific Problems
- 10.9.2. Healthcare and Non-Healthcare Demand

10.10. Special Situations: Long-Term Survivors with Disease, Long-Term Child and Adolescent Survivors
- 10.10.1. Sick Patients and Long-Term Survivors
- 10.10.2. Long-Term Surviving Teenager

You will improve your ability to analyze genetic mutations and epigenetic modifications, enabling highly accurate molecular classification"

04

Teaching Objectives

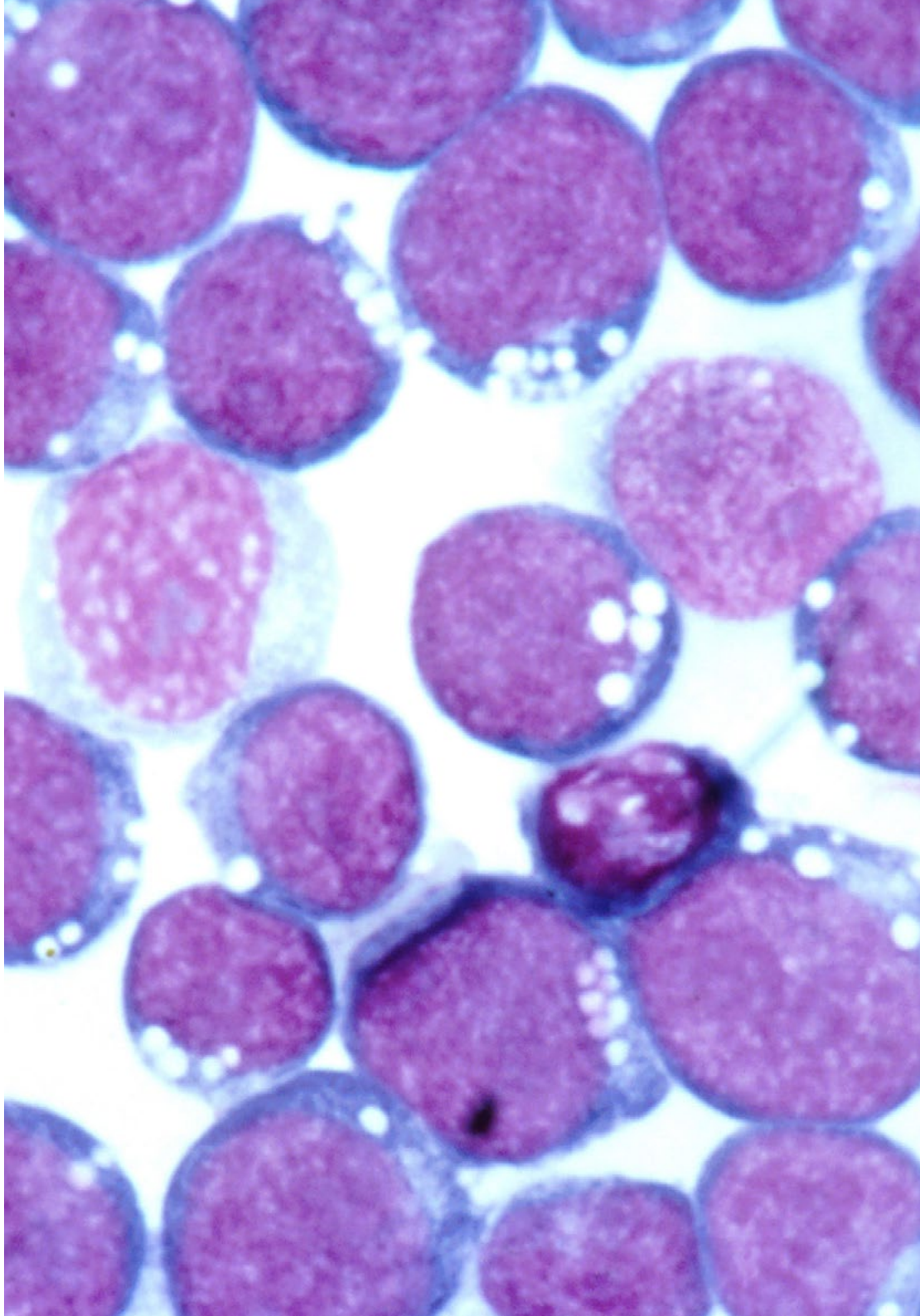
Thanks to this comprehensive academic program, physicians will gain an integral understanding of the diagnosis and treatment of Cancer of Unknown Primary. Aligned with this, professionals will master innovative strategies based on cutting-edge tools such as biomarkers and targeted therapies. Additionally, graduates will strengthen their critical analysis and clinical decision-making skills in complex scenarios, driving continuous improvement in clinical practice.

You will develop skills for clinical decision-making based on biomarkers, optimizing therapeutic interventions in the management of Cancer of Unknown Primary"

General Objectives

- Deepen your knowledge of the epidemiology, classification, and clinical characteristics of Infrequent Tumors
- Explore healthcare models and regulatory strategies for managing Infrequent Tumors
- Identify methodological challenges in clinical research on Infrequent Tumors, addressing novel approaches such as adaptive clinical trials, Bayesian inference, and applied nanoscience
- Determine molecular alterations and genomic profiles associated with Infrequent Tumors across different locations, emphasizing their impact on therapy selection and the development of personalized treatments
- Address psychosocial aspects and quality of life for patients with Infrequent Tumors, considering barriers to treatment access

Decode the clinicopathological patterns of Cancer of Unknown Primary to optimize diagnosis and treatment selection in complex hospital settings"



Specific Objectives

Module 1. Reality of Orphan, Agnostic Tumors and Tumors of Unknown Origin

- Differentiate the concepts of Uncommon Cancer, establishing their epidemiological and clinical particularities
- Quantify the incidence, prevalence, and survival rates of Uncommon Tumors at the national level, identifying causes of variability in outcomes
- Examine the impact of precision medicine on the diagnosis and treatment of Uncommon Tumors, addressing its rationale, genomic applications, and clinical experiences
- Analyze the most modern care models for the optimal management of Uncommon Tumors

Module 2. Molecular Biology Tools for the Agnostic Approach to Rare Cancer

- Address the fundamentals of Molecular Oncology
- Compare solid and liquid biopsy methodologies in tumor DNA analysis, evaluating their applications, advantages, and limitations in the agnostic approach to cancer
- Explore the latest advances in epigenetics and molecular biology

Module 3. Pleural, Mediastinal and Chest Wall Tumors: Lung Cancer As a Paradigm of New Rare Tumors. Head and Neck Cancer

- Analyze the epidemiological, etiopathogenic, and clinical characteristics of Pleural, Mediastinal, and Chest Wall Tumors
- Explore advances in the treatment of Nasopharyngeal Carcinoma, Salivary Gland Tumors, and Nasal Tumors

Module 4. Uncommon Digestive Tumors. Digestive Neuroendocrine Tumors Thyroid Cancer

- Describe the epidemiology, risk factors, and molecular characteristics of Uncommon Digestive Tumors
- Determine the diagnostic and therapeutic criteria for Gastrointestinal Stromal Tumors, considering their molecular biology

Module 5. Uncommon Gynecologic Tumors. Rare Breast Tumors. Genitourinary Oncology of Uncommon Tumors

- Describe the clinical and molecular characteristics of Uncommon Tumors in the gynecological area, breast, and genitourinary oncology
- Determine the specific diagnostic and therapeutic criteria for each Rare Tumor subtype in these systems, considering advances in imaging, molecular markers, and personalized treatments
- Evaluate the impact of hereditary syndromes and risk factors associated with these tumors, facilitating prevention strategies and early detection in high-risk populations
- Explain current therapeutic options for managing localized and metastatic disease, including surgical, systemic, and precision medicine approaches

Module 6. Hereditary Syndromes: from Biology to Clinical Application. Pediatric Tumors and Pediatric Tumors Occurring in Adults

- Identify the clinical, molecular, and hereditary characteristics of cancer predisposition syndromes, facilitating their early detection and appropriate management
- Connect molecular biology with clinical application in Pediatric Tumors and tumors in young adults, enhancing understanding of their progression and treatment
- Develop innovative therapeutic strategies for managing Pediatric Tumors and tumors in young adults, considering advances in precision oncology
- Address palliative care in Pediatric Oncology, tailoring care to the specific needs of patients and their families

Module 7. Musculoskeletal Tumors. Epithelial Cancer. Central Nervous System Tumors. Ocular Tumors

- Distinguish the clinical and pathological features of malignant skin tumors and their adnexa, incorporating advances in diagnosis and targeted therapies
- Analyze the epidemiology, etiopathogenesis, and clinical management of ocular tumors in adults, ranging from eyelid tumors to orbital metastases
- Interpret the molecular basis of visceral sarcomas and its implications for developing new personalized therapeutic strategies

Module 8. Agnostic Tumors

- Define the concept of agnostic treatment in oncology and its impact on clinical practice
- Describe the relevance of NTRK fusions across different tumor types and the algorithms used for patient identification
  Compare the clinical outcomes of approved and emerging agnostic therapies for various types of cancer
- Evaluate the efficacy and toxicity of NTRK inhibitors in the treatment of tumors with TRK fusions

Module 9. Cancer of Unknown Primary

- Optimize coordination and communication among specialties within multidisciplinary teams, promoting the effective integration of medical oncology, surgical oncology, and radiotherapy
- Evaluate the impact of liquid biopsy and other advanced diagnostic tools on cancer detection, monitoring, and treatment selection
- Apply precision medicine principles through the identification of biomarkers, therapeutic targets, and the use of artificial intelligence to enhance clinical decision-making
- Analyze the ethical and regulatory challenges associated with the implementation of personalized therapies, ensuring accessibility, equity, and regulatory compliance

Module 10. Supportive Care, Management of Antineoplastic Treatment Toxicity, Palliative Care, and Care of Long-Term Survivors with Low-Incidence Tumors

- Define the impact of supportive care on the survival and quality of life of oncology patients, highlighting its relevance within a comprehensive therapeutic strategy
- Differentiate the types of cancer-related pain and their pathophysiological mechanisms to optimize both pharmacological and non-pharmacological treatment strategies
- Correlate the adverse effects of chemotherapy, targeted therapies, and immunotherapy with their mechanisms of action to enable more effective and personalized clinical management
- Establish admission criteria for oncology patients with severe toxicity in intensive care units, taking into account risks, benefits, and prognosis
- Integrate palliative care and end-of-life sedation models, ensuring ethical, humanized, and evidence-based care
- Apply follow-up and sequelae detection strategies for long-term cancer survivors, considering variations by age, tumor type, and healthcare needs

05

Study Methodology

TECH is the world's first university to combine the **case study** methodology with **Relearning**, a 100% online learning system based on guided repetition.

This disruptive pedagogical strategy has been conceived to offer professionals the opportunity to update their knowledge and develop their skills in an intensive and rigorous way. A learning model that places students at the center of the educational process giving them the leading role, adapting to their needs and leaving aside more conventional methodologies.

TECH will prepare you to face new challenges in uncertain environments and achieve success in your career"

The student: the priority of all TECH programs

In TECH's study methodology, the student is the main protagonist.
The teaching tools of each program have been selected taking into account the demands of time, availability and academic rigor that, today, not only students demand but also the most competitive positions in the market.

With TECH's asynchronous educational model, it is students who choose the time they dedicate to study, how they decide to establish their routines, and all this from the comfort of the electronic device of their choice. The student will not have to participate in live classes, which in many cases they will not be able to attend. The learning activities will be done when it is convenient for them. They can always decide when and from where they want to study.

"At TECH you will NOT have live classes (which you might not be able to attend)"

The most comprehensive study plans at the international level

TECH is distinguished by offering the most complete academic itineraries on the university scene. This comprehensiveness is achieved through the creation of syllabi that not only cover the essential knowledge, but also the most recent innovations in each area.

By being constantly up to date, these programs allow students to keep up with market changes and acquire the skills most valued by employers. In this way, those who complete their studies at TECH receive a comprehensive education that provides them with a notable competitive advantage to further their careers.

And what's more, they will be able to do so from any device, pc, tablet or smartphone.

> *TECH's model is asynchronous, so it allows you to study with your pc, tablet or your smartphone wherever you want, whenever you want and for as long as you want"*

Case Studies and Case Method

The case method has been the learning system most used by the world's best business schools. Developed in 1912 so that law students would not only learn the law based on theoretical content, its function was also to present them with real complex situations. In this way, they could make informed decisions and value judgments about how to resolve them. In 1924, Harvard adopted it as a standard teaching method.

With this teaching model, it is students themselves who build their professional competence through strategies such as Learning by Doing or Design Thinking, used by other renowned institutions such as Yale or Stanford.

This action-oriented method will be applied throughout the entire academic itinerary that the student undertakes with TECH. Students will be confronted with multiple real-life situations and will have to integrate knowledge, research, discuss and defend their ideas and decisions. All this with the premise of answering the question of how they would act when facing specific events of complexity in their daily work.

Relearning Methodology

At TECH, case studies are enhanced with the best 100% online teaching method: Relearning.

This method breaks with traditional teaching techniques to put the student at the center of the equation, providing the best content in different formats. In this way, it manages to review and reiterate the key concepts of each subject and learn to apply them in a real context.

In the same line, and according to multiple scientific researches, reiteration is the best way to learn. For this reason, TECH offers between 8 and 16 repetitions of each key concept within the same lesson, presented in a different way, with the objective of ensuring that the knowledge is completely consolidated during the study process.

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.

A 100% online Virtual Campus with the best teaching resources

In order to apply its methodology effectively, TECH focuses on providing graduates with teaching materials in different formats: texts, interactive videos, illustrations and knowledge maps, among others. All of them are designed by qualified teachers who focus their work on combining real cases with the resolution of complex situations through simulation, the study of contexts applied to each professional career and learning based on repetition, through audios, presentations, animations, images, etc.

The latest scientific evidence in the field of Neuroscience points to the importance of taking into account the place and context where the content is accessed before starting a new learning process. Being able to adjust these variables in a personalized way helps people to remember and store knowledge in the hippocampus to retain it in the long term. This is a model called Neurocognitive context-dependent e-learning that is consciously applied in this university qualification.

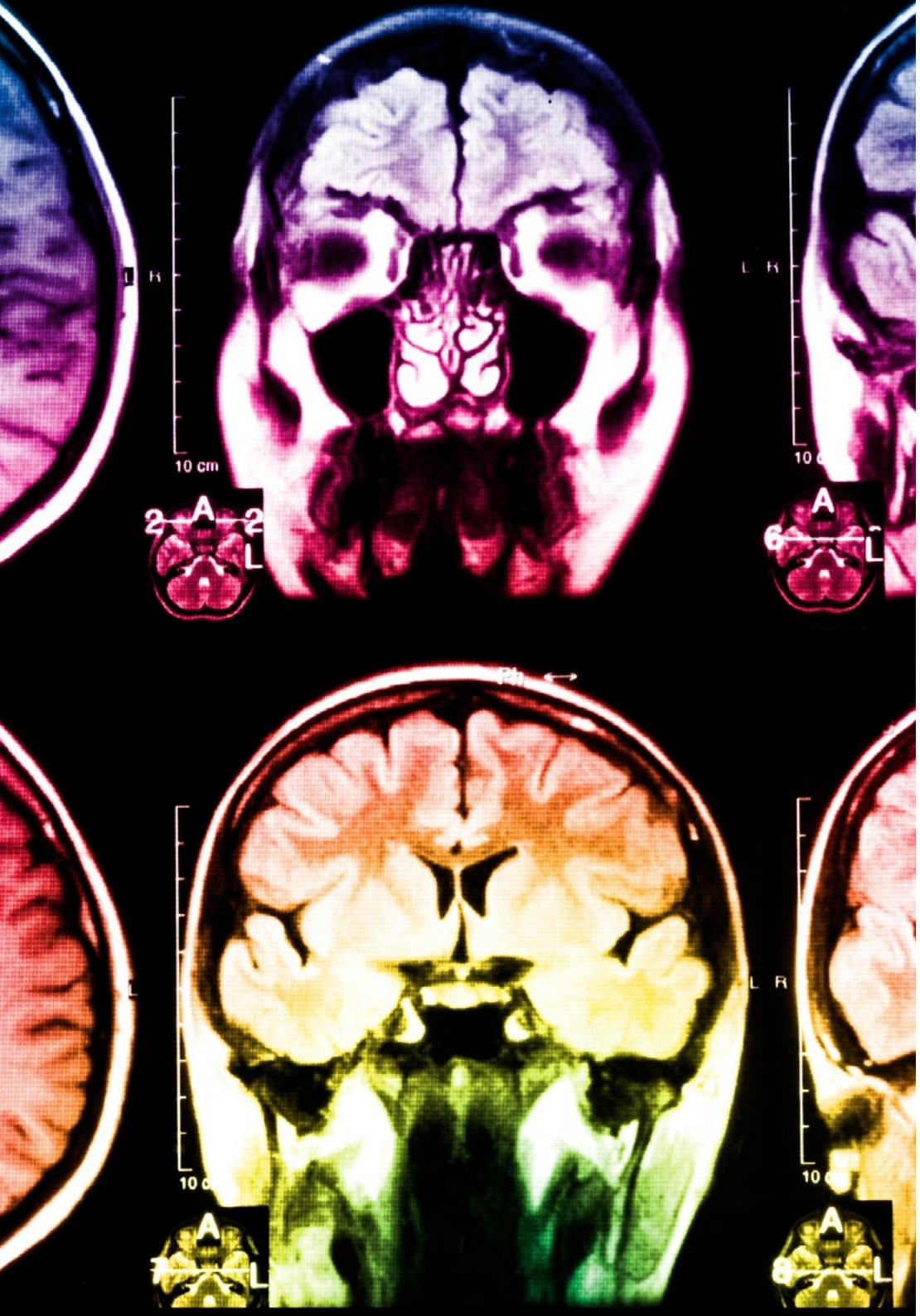
In order to facilitate tutor-student contact as much as possible, you will have a wide range of communication possibilities, both in real time and delayed (internal messaging, telephone answering service, email contact with the technical secretary, chat and videoconferences).

Likewise, this very complete Virtual Campus will allow TECH students to organize their study schedules according to their personal availability or work obligations. In this way, they will have global control of the academic content and teaching tools, based on their fast-paced professional update.

The online study mode of this program will allow you to organize your time and learning pace, adapting it to your schedule"

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 assess 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.



The university methodology top-rated by its students

The results of this innovative teaching model can be seen in the overall satisfaction levels of TECH graduates.

The students' assessment of the teaching quality, the quality of the materials, the structure of the program and its objectives is excellent. Not surprisingly, the institution became the top-rated university by its students according to the global score index, obtaining a 4.9 out of 5.

Access the study contents from any device with an Internet connection (computer, tablet, smartphone) thanks to the fact that TECH is at the forefront of technology and teaching.

You will be able to learn with the advantages that come with having access to simulated learning environments and the learning by observation approach, that is, Learning from an expert.

As such, the best educational materials, thoroughly prepared, will be available in this program:

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.

This content is then adapted in an audiovisual format that will create our way of working online, with the latest techniques that allow us to offer you high quality in all of the material that we provide you with.

Practicing Skills and Abilities

You will carry out activities to develop specific competencies and skills in each thematic field. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop within the framework of the globalization we live in.

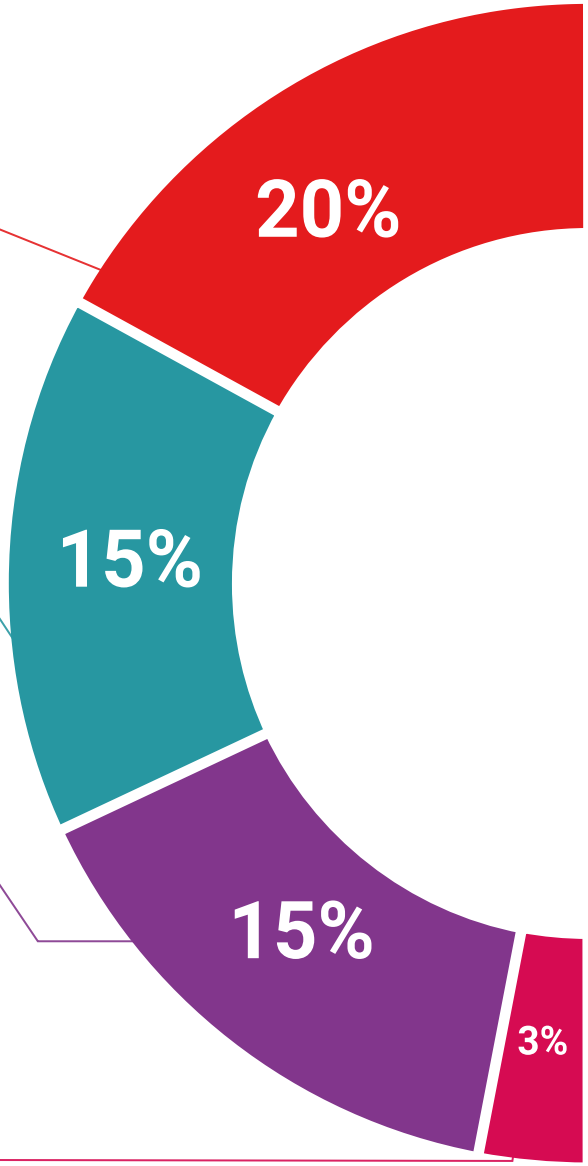
Interactive Summaries

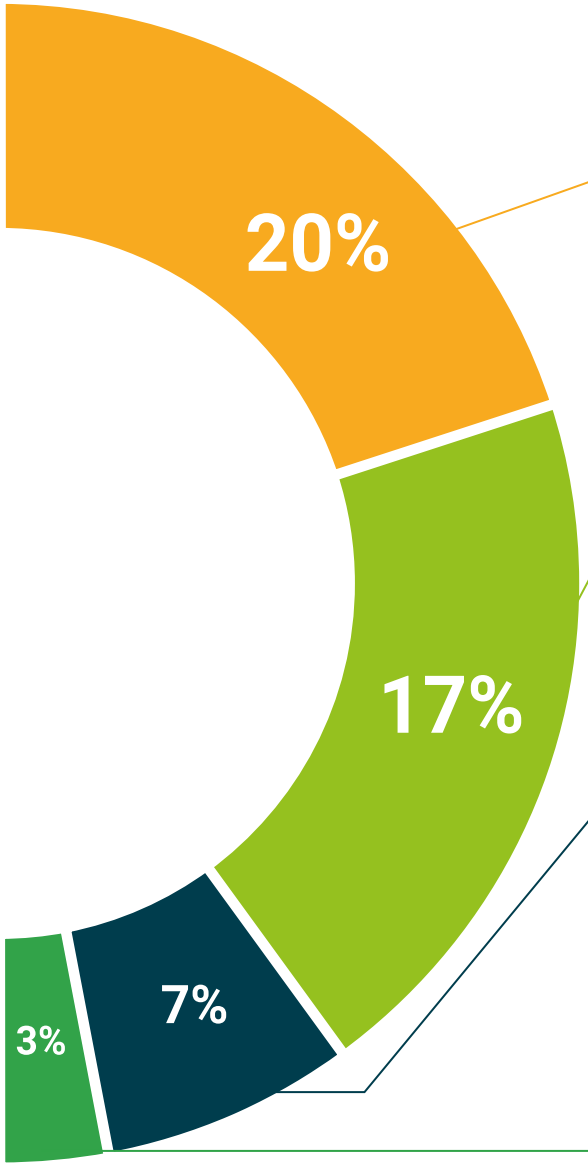
We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

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

Additional Reading

Recent articles, consensus documents, international guides... In our virtual library you will have access to everything you need to complete your education.





Case Studies

Students will complete a selection of the best case studies in the field. Cases that are presented, analyzed, and supervised by the best specialists in the world.

Testing & Retesting

We periodically assess and re-assess your knowledge throughout the program. We do this on 3 of the 4 levels of Miller's Pyramid.

Classes

There is scientific evidence suggesting that observing third-party experts can be useful.

Learning from an expert strengthens knowledge and memory, and generates confidence for 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

Teaching Staff

Committed to academic excellence, TECH brings together renowned specialists to deliver in-depth expertise in this medical field. This syllabus is led by a highly qualified team recognized in oncology and cancer treatment, equipping students with essential tools for professional growth. In addition, leading experts contribute an interdisciplinary perspective, broadening the understanding of rare and uncommon cancers. This university program not only strengthens clinical proficiency but also promotes research, driving scientific progress and enhancing therapeutic approaches to improve patient care.

You will benefit from personalized guidance provided by a distinguished faculty with extensive experience in the management of Cancer of Unknown Primary"

Management

Dr. Beato Zambrano, Carmen

- Specialist in Medical Oncology at the Virgen Macarena University Hospital
- Medical Oncologist at the HLA Hospital Group
- Medical Oncologist at GenesisCare
- Medical Oncologist in Oncoavanze
- Author and co-author of a large number of scientific articles
- Master's Degree in Clinical Trials by the University of Sevilla
- Expert in Palliative Care by the Comillas Pontifical University
- Expert in Immuno-Oncology from the University of Navarra
- Member of the Spanish Group of Orphan and Infrequent Tumors
- Secretary of the Spanish Group of Cancer of Unknown Primary

Professors

Dr. García-Donas Jiménez, Jesús

- Oncologist in the Unit of Urological, Gynecological and Dermatological Tumors of HM Hospitals
- Head of the Translational Oncology Laboratory
- Expert in Immuno-Oncology at the Clara Campal Comprehensive Oncology Center
- Treasurer of the Spanish Group of Orphan and Uncommon Tumors (GETTHI)
- Degree in Medicine from the Complutense University of Madrid

Dr. Fernández Pérez, Isaura

- Specialist in Medical Oncology in the Galician Health Service (Servizo Galego de Saúde)
- Medical Oncologist in the Breast Cancer Unit, Gynecological, Unknown Origin and Central Nervous System, Vigo University Hospital Complex, Álvaro Cunqueiro Hospital
- Member of the Spanish Group of Cancer of Unknown Origin (GECOD)
- Degree in Medicine and Surgery from the University of Santiago de Compostela

Dr. De las Peñas Bataller, Ramón

- Medical Director of the Oncology Consortium at the General University Hospital of Castellón
- President of the Spanish Research Group on Orphan and Uncommon Tumors (GETTHI)
- Degree in Medicine and Surgery from the University of Valencia
- Specialist in Neurology
- Specialist in Medical Oncology

Dr. Corral Jaime, Jesús

- Oncology Expert in Lung Cancer
- Medical Oncology, Clinical University of Navarra
- Consultant in Medical Oncology, Hospital Virgen del Rocío
- Master's Degree in Biomedical Research, University of Sevilla
- Master's Degree in Clinical Trials, University of Sevilla
- Member of: Spanish Society of Medical Oncology, Society for the Study of Thoracic Wall Tumors in Women, Spanish Lung Cancer Group (GECP) and Specialty of Medical Oncology, National Commission of Medical Oncology

Dr. Pérez Altozano, Javier

- Area Specialist in the Medical Oncology Service at the Virgen de los Lirios Hospital
- Medical Oncologist at the Lilly Clinic
- Assistant Doctor of Medical Oncology at the General University Hospital of Elche
- Assistant Medical Oncologist at the Vega Baja Hospital. Orihuela, Spain
- Master's Degree in Clinical and Medical Care Management
- Master's Degree in Immuno-Oncology
- Expert in Medical Management and Health Services Management
- Expert in Molecular Biology of Lung Cancer
- Member of: Spanish Society of Oncology

Dr. Reina Zoilo, Juan José
- Medical Specialist in Digestive and Neuroendocrine Tumors
- Medical Oncologist of the Digestive and Neuroendocrine Tumors Unit at the Virgen Macarena University Hospital
- Medical Specialist in Oncology at the Juan Ramón Jiménez Hospital
- Medical Specialist in Oncology at the San Pedro de Alcántara Hospital
- Resident Medical Intern at the Virgen del Rocío University Hospital
- Member of: Andalusian Cancer Society (REDSAC) and Spanish Society of Medical Oncology (SEOM)

Dr. Henao Carrasco, Fernando Manuel
- Medical Specialist in Radiation Oncology
- Assistant Physician of the Oncology Unit at the Virgen Macarena University Hospital
- Specialist Physician of the Extremadura Health Service
- Member of: Andalusian Society of Medical Oncology (SAOM)

Dr. Martín Ramos, Francisco Javier
- Orthopedic Spine Surgeon Expert in Traumaspine
- Specialist in Traumatology and Spine Surgery at the Virgen Macarena University Hospital
- Traumatologist and Orthopedic Surgeon at the Virgen de Valme University Hospital
- Traumatologist in the Spinal Unit at Mutua Asepeyo
- Specialist in Orthopedic Surgery and Traumatology in the Spinal Surgery Unit
- University Expert in Spinal Pathology, Tumors and Infections of the Locomotor System
- Master's Degree in Clinical Trials at the Virgen Macarena University Hospital

Dr. Calero Domínguez, Raquel
- Psychologist Specialist in Psycho-Oncology
- Psychologist at the Hospital Nisa Sevilla Aljarafe
- Psychologist at the Quirónsalud Los Remedios Medical Center
- Psychologist at the Hospital Quirónsalud Infanta Luisa
- Coordinator of the Oncology Patients' Meetings
- Doctor of Psychology from the Complutense University of Madrid
- Degree in Psychology from the University of Sevilla
- Master's Degree in Psycho-Oncology and Palliative Care from the Complutense University of Madrid

Dr. Morillo Rojas, María Dolores
- Ophthalmology Specialist at the Glaucoma Unit of the University Hospital of Jerez de la Frontera
- Medical Specialist in Ophthalmology at the Virgen Macarena University Hospital
- Degree in Medicine from the University of Sevilla
- Master's Degree in Ophthalmology by the University CEU Cardenal Herrera
- Diploma in Advanced Studies from the University of Sevila
- Master's Degree in Clinical Trials from the University of Sevilla
- Member and Bibliographic Commentator in the Spanish Society of Ophthalmology

Dr. Navarro Alcaraz, Paloma
- Researcher of the Genitourinary, Gynecological and Skin Tumors Unit and Rare Tumors Program at the Research Foundation of the HM University Hospital. Madrid
- Researcher at the National Cancer Research Center
- Professor of Science at Saint Louis University
- Doctor of Biochemistry and Molecular Biology from the Complutense University of Madrid
- Graduate in Pharmacy from the Complutense University of Madrid

Dr. Garcia, David

- Pediatric Oncohematologist
- Specialist in the Oncohematology Unit of the Pediatrics Clinical Management Unit at the Virgen Macarena University Hospital
- Resident Medical Intern in Pediatrics and Specific Areas at the Hospital Maternoinfantil Reina Sofía Córdoba, Spain
- External Rotating Stay at the Pediatric Oncohematology and Transplant Service at the Mother and Child Hospital Vall d´Hebron
- Area Specialist in the Pediatrics Service at the Mother and Child Hospital Reina Sofia de Cordoba, Pediatric Oncology Unit and in the Emergency Department
- Area Specialist in the Pediatrics Service at the Infanta Margarita Hospital in Cabra Complementary work in the Pediatric and Neonatal Hospitalization Ward Assistance in the Emergency Department and Delivery Room
- Clinical Practice Tutor
- Researcher
- University Professor
- Graduate in Medicine from the University of Córdoba
- Scholarship of Studies from the Concepción University. Chile
- Scholarship from the Spanish Association of Pediatrics for external rotation during the residency
- Member of: Spanish Society of Pediatric Hematology and Oncology, Society of Pediatrics of Western Andalusia and Extremadura, Spanish Association of Pediatrics

Dr. Ruiz Llorente, Sergio

- Researcher at the HM Hospitales Research Foundation
- Researcher at Memorial Sloan Kettering Cancer Center. United States
- Researcher at the National Cancer Research Center
- Researcher at the Alberto Sols Biomedical Research Institute
- Researcher at the Translational Oncology Laboratory of the Oncology Integral Center Clara Campal
- Doctor of Biological Sciences from the University of Alcalá
- Degree in Biological Sciences, Specialization in Molecular and Cellular Biology from the University of Alcalá

Dr. Barquín García, Arántzazu

- Oncologist Specialist in Ovarian Cancer Immunology
- Oncologist at the Urological, Gynecological and Dermatological Tumors Unit, Medical Hospital, Oncology Integral Center Clara Campal
- Physician at the Specialized Cancer Center, Princess Margaret's Cancer Centre, United Kingdom
- Specialist in Medical Oncology, Ramón y Cajal University Hospital, Madrid
- Treasurer of the Spanish Group of Orphan and Uncommon Tumors (GETTHI)

A unique, crucial and decisive learning experience to boost your professional development"

07

Certificate

The Professional Master's Degree in Cancer of Unknown Primary guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Global University.

Successfully complete this program and receive your university qualification without having to travel or fill out laborious paperwork"

This private qualification will allow you to obtain a **Professional Master's Degree in Cancer of Unknown Primary** 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.

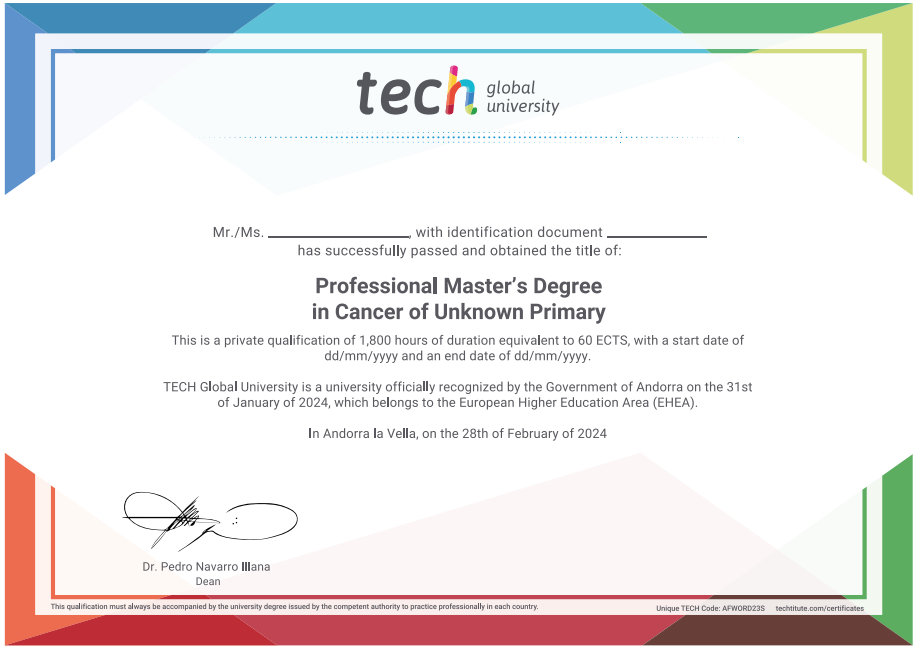
This **TECH Global University** private qualification is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Professional Master's Degree in Cancer of Unknown Primary**

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 Cancer of Unknown Primary

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 Cancer of Unknown Primary

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	Reality of Orphan, Agnostic Tumors and Tumors of Unknown Origin	6	CO
1º	Molecular Biology Tools for the Agnostic Approach to Rare Cancer	6	CO
1º	Pleural, Mediastinal and Chest Wall Tumors: Lung Cancer As a Paradigm of New Rare Tumors. Head and Neck Cancer	6	CO
1º	Uncommon Digestive Tumors. Digestive Neuroendocrine Tumors Thyroid Cancer	6	CO
1º	Uncommon Gynecologic Tumors. Rare Breast Tumors. Genitourinary Oncology of Uncommon Tumors	6	CO
1º	Hereditary Syndromes: from Biology to Clinical Application. Pediatric Tumors and Pediatric Tumors Occurring in Adults	6	CO
1º	Musculoskeletal Tumors. Epithelial Cancer. Central Nervous System Tumors. Ocular Tumors	6	CO
1º	Agnostic Tumors	6	CO
1º	Cancer of Unknown Primary	6	CO
1º	Supportive Care, Management of Antineoplastic Treatment Toxicity, Palliative Care, and Care of Long-Term Survivors with Low-Incidence Tumors	6	CO

Dr. Pedro Navarro Illana
Dean

tech global university

*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.

tech global university

Professional Master's Degree

Cancer of Unknown Primary

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

Professional Master's Degree

Cancer of Unknown Primary

Endorsed by:

GETTHI
Grupo Español de Oncología Transversal y Tumores Huérfanos e Infrecuentes

tech global university