

# Postgraduate Diploma

Hair Transplantation: Capillary  
Diseases. Androgenetic  
Alopecia and Effluvium



## Postgraduate Diploma Hair Transplantation: Capillary Diseases. Androgenetic Alopecia and Effluvium

Course Modality: **Online**

Duration: **6 months**

Certificate: **TECH Technological University**

Official N° of hours: **450 h.**

Website: [www.techtute.com/pk/medicine/postgraduate-diploma/postgraduate-diploma-hair-transplantation-capillary-diseases-androgenetic-alopecia-effluvium](http://www.techtute.com/pk/medicine/postgraduate-diploma/postgraduate-diploma-hair-transplantation-capillary-diseases-androgenetic-alopecia-effluvium)

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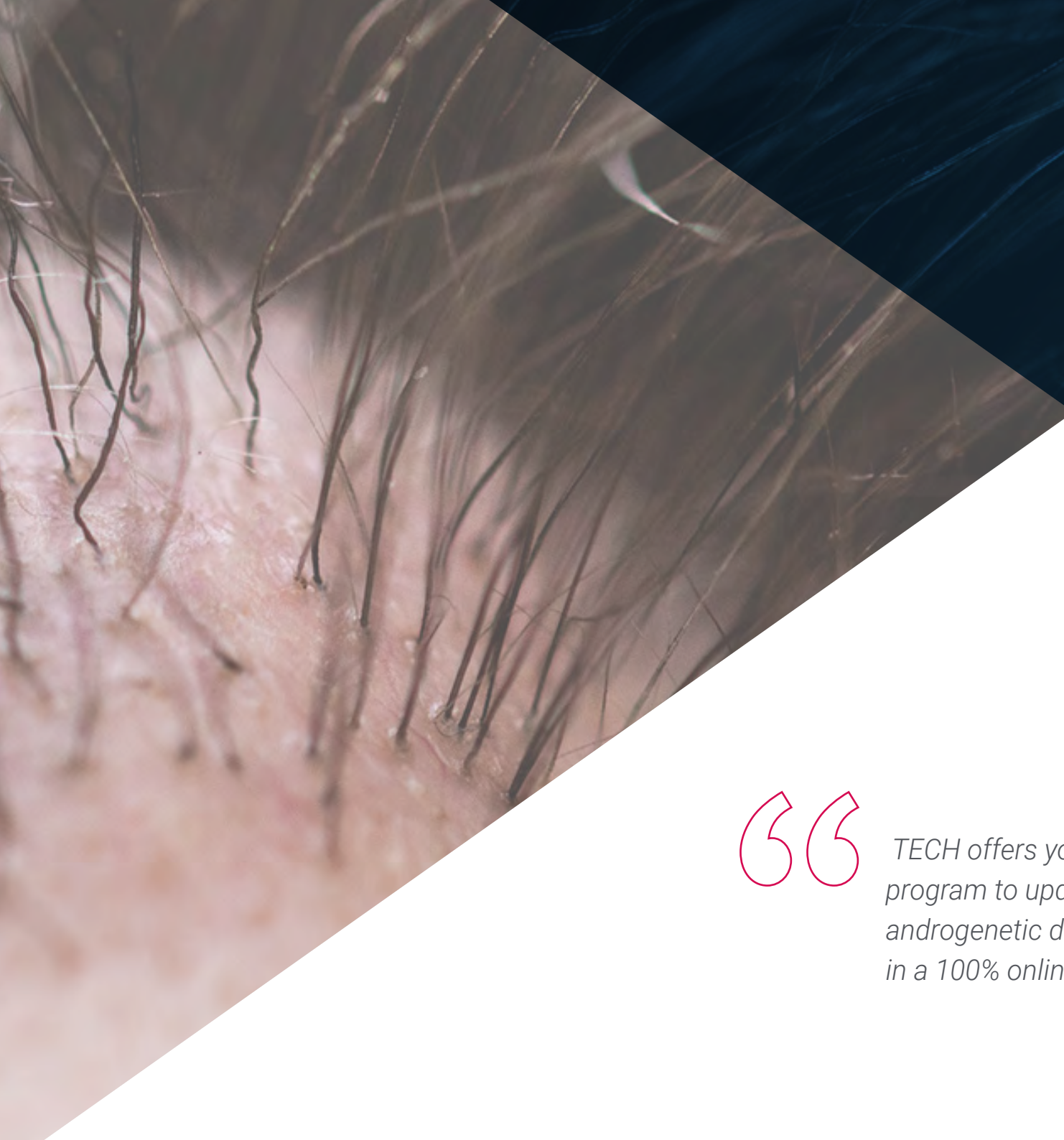
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# 01

# Introduction

Although until relatively recently the concept of hair disease was mainly focused on the male sex, pathologies such as androgenetic alopecia or telogen effluvium are becoming more and more visible in women. It is a problem that affects millions of people around the world and, thanks to the continuous research that has been carried out in the field of dermatology, diagnostic and therapeutic strategies are becoming increasingly more effective and efficient. In order to enable specialists in this field to update their practice based on them, TECH has developed a complete program that includes the latest information on the subject. This is a 450 hour academic program in which the doctor will delve into the epidemiology of the different hair diseases, mainly in women, in a 100% online way.





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*TECH offers you the most complete academic program to update your practice in relation to androgenetic diseases, effluvium and alopecia in a 100% online way”*

Androgenetic alopecia is one of the most common hair pathologies in both men and women, accounting for around 50% and 40%, respectively, of the world's population. It is a disease that, although it is usually associated with advanced age, can also occur in young patients, affecting their appearance and, therefore, their self-esteem, especially in female cases. The same occurs with telogen effluvium, the alteration of the hair growth cycle that causes a drastic and diffuse hair loss, considerably affecting the amount of hair remaining on the scalp. Like these, there are dozens of hair-related conditions and their frequent presence in society has motivated specific studies to contribute to the establishment of increasingly effective and accurate treatments for each of them.

It is precisely in this field that TECH, together with a team of specialists in the field of Hair Dermatology, has developed the Postgraduate Diploma. It is an academic program of the highest level distributed in 450 hours of the best theoretical, practical and additional content, which has been designed based on the latest and most comprehensive information in the medical sector. Therefore, during the 6 months of the program, the graduate will be able to delve into the latest advances in hair diseases, focusing on Androgenic Alopecia and Effluvium, their early diagnostic strategies and the most effective therapeutic techniques for both men and women.

All this 100% online through a state-of-the-art Virtual Campus which can be accessed from any device with an internet connection, whether it is a PC, tablet or cell phone. In addition to the syllabus, you will find dozens of hours of additional material (detailed videos, research articles, complementary readings, self-knowledge exercises, news, dynamic summaries, etc.) to delve into the different sections of the program in a personalized way. In addition, you will be able to download it for consultation, even after the academic program is over. This way you will be able to keep up to date on the latest developments in Hair Medicine in an exhaustive and guaranteed way, without worrying about having to attend face-to-face classes or following strict schedules.

This **Postgraduate Diploma in Hair Transplantation: Capillary Diseases. Androgenetic Alopecia and Effluvium** contains the most complete and up-to-date scientific program on the market. The most important features include:

- ♦ Practical cases presented by experts in Dermatology and Hair Transplantation
- ♦ 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 self-assessment can be used to improve learning
- ♦ Its special emphasis on innovative methodologies
- ♦ 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



*A pathology that delves into the novelties of the pathologies of the scalp over 450 hours of the best theoretical, practical and additional content"*

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*Delving into the complications that can arise in different hair pathologies will help you to implement the latest clinical management strategies to avoid and solve them in your practice”*

The program's teaching staff includes professionals from sector who contribute their work experience to this program, as well as 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 immersive education programmed to learn in real situations.

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

*You will work intensively on perfecting your diagnostic skills through the most effective and innovative dermatological guidelines.*

*Thanks to the course of this program, you will be able to address Bromhidrosis chaos based on the curative treatments that are currently having the best results.*



# 02 Objectives

The very high number of cases of people suffering from some type of pathology related to hair growth or hair loss is what has motivated TECH to develop this program. The objective is to provide the specialist in Hair Medicine with the most exhaustive and innovative information related to androgenetic diseases and effluvium, so that they can update their practice through an academic program that not only adapts to their needs, but also to the demands of today's clinical sector.







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*This program will give you the keys to carry out an innovative and exhaustive clinical practice based on the most effective natural and chemical treatments in hair dermatology”*



## General objectives

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- Provide the graduate with the most innovative and effective academic tools to facilitate, in a guaranteed manner, the updating of their practice
- Know in detail the advances that have been made in diagnostic and therapeutic matters in relation to the different hair diseases that exist today



*Whatever your objectives are, if they are related to Hair Dermatology, in this Postgraduate Diploma you will find the academic tools to achieve them"*





## Specific Objectives

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### Module 1. Hair Disorders

- ♦ Gain in-depth knowledge on how to carry out a thorough clinical history, as well as to evaluate in detail both the donor area, which must be appropriate, and the recipient area. Both are key steps for achieving good capillary diagnosis
- ♦ Learn how to perform a proper photographic study for the clinical history
- ♦ Learn to observe a photograph with the microcamera, distinguish the different follicular patterns, perifollicular, intrafollicular, and differences in thickness and texture in the hair as a basis for establishing a correct hair diagnosis, and determine the treatment to be performed based on this
- ♦ Review the history of hair transplantation and medicine over the years and the evolution and changes in this branch of aesthetic medicine, both in diagnosis and surgical techniques
- ♦ Delve into trichological knowledge in relation to the different hair diseases
- ♦ Address the main pathologies of the scalp and their treatment, we will deal in depth with all types of alopecia and dysplasia that exist, their differential characteristics, etiology, development, diagnosis and main treatments currently
- ♦ Classify capillary diseases according to different processes, depending on their resolution, into easily resolvable, potentially resolvable, and difficult to resolve
- ♦ Differentiate between scarring and non-scarring alopecia, adjusting treatment accordingly
- ♦ Classify primary alopecias, in which the primary lesion produces inflammation of the hair follicle, and secondary alopecia, in which the damage occurs in the entire dermis, including the follicle
- ♦ Classify alopecia into congenital and acquired alopecia
- ♦ Another classification of scarring alopecia according to the North American Hair Research Society (NAHRS) depending on the type of microscopic infiltrate

### Module 2. Androgenetic Alopecia

- ♦ Acquire a solid base to solve our patients' problems. It is the most common form of alopecia in men and women
- ♦ Study the changes in the hair cycle in androgenetic alopecia, the genetic and hormonal factors involved, the role of androgens in this pathology, testosterone, dihydrotestosterone and 5-alpha-reductase as responsible for this type of alopecia
- ♦ Study the clinical characteristics
- ♦ Classify androgenetic alopecia (Norwood-Hamilton)
- ♦ Study the diagnosis of AGA: clinical study with a miniaturized hair pattern, laboratory tests and genetic study
- ♦ Perform a differential diagnosis, especially in women, supported by the following characteristics: focal pattern baldness with miniaturized hairs, gradual onset with progression, thinning, onset after puberty, and negative traction
- ♦ Know cosmetic, dietary, topical, local, and systemic treatment
- ♦ Review specific treatment techniques: hair mesotherapy and biological therapies with platelet-rich plasma and stem cells

### Module 3. Effluvia

- ♦ In-depth knowledge of non-scarring alopecia: Effluvia
- ♦ Diagnose telogen and anagen effluvia, both chronic and acute
- ♦ Learn how to apply the knowledge acquired in diagnostic techniques, to make differential diagnoses with other alopecias
- ♦ Apply different medical treatments for each of the types of effluvium, and indicate a management algorithm for patients with diffuse capillary leakage, based on a targeted and specific clinical history
- ♦ Study the different apparatus for trichological diagnosis of the pathology studied

03

# Course Management

The faculty of this Postgraduate Diploma has been designed by TECH taking into account, as it could not be otherwise, the academic curriculum of the best professionals who applied. Thanks to this, it has been possible to form a teaching team of the highest level versed in hair dermatology and distinguished by its broad and extensive experience in the clinical management of diseases such as alopecia, lupus or dermatosis, among many others. In this way, the graduate will be able to update their knowledge based on the experience of the best specialists.





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*TECH gives you the possibility to consult any questions that may arise throughout the Postgraduate Diploma with the teaching team, making use of the direct communication tools that you will find in the Virtual Campus”*

## Management



### **Dr. Pérez Castaño, Cristina Gema**

- ♦ Specialist in Hair Transplant in clinics such as MC360, MAN MEDICAL INSTITUTE
- ♦ Head of the Hair Transplant Unit at the EIVIESTETIC clinic in Ibiza
- ♦ PhD in organ transplantation with asystole donors through a Mutua Madrileña Scholarship, specialized training in medical pathology, infectious diseases, organ transplantation and emergency units worldwide
- ♦ Degree in Medicine and Surgery from the Complutense University of Madrid
- ♦ Specialist via MIR in Intensive Care Medicine at the Doce de Octubre Hospital in Madrid
- ♦ Master's Degree in Outpatient Emergency Medicine



## Professors

### Dr. Ángel Navarro, Rosa María

- ◆ Hair Transplant Specialist
- ◆ Specialist in Allergy and Immunopathology at the University of Buenos Aires
- ◆ Specialist in Public Health from the University of Buenos Aires. Argentina
- ◆ Medical specialist in hair micrografting by UDIMA University
- ◆ Degree in Medicine and Surgery from the Complutense University of Madrid
- ◆ Four-year residency at the J.M. Ramos Mejía University Hospital

### Dr. Santos Gil, Antonio

- ◆ Second Degree Specialist in Hairdressing and Aesthetics with dedication to hair diagnosis and various hair treatments
- ◆ Characterization specialist in Opera and Theater
- ◆ Trainer in the field of postician with special dedication in the circle of oncology patients with the firm Capel-lo by Aderans
- ◆ Hair treatment trainer at TICAP Clinics and specialist in Visagism and trichological diagnosis at MC360 Clinics

### Ms. García Retorta, María del Carmen

- ◆ Operating Room Nurse at La Paz University Hospital in Madrid
- ◆ Operating room nurse at La Princesa, Getafe and Marqués de Valdecilla Hospitals
- ◆ Head of the oncological and reparative micropigmentation department of the EGR Medicine Institute
- ◆ University Diploma in Nursing at the University of Cantabria
- ◆ Postgraduate degree in Dermo-aesthetic and Dermocosmetic Nursing at the University of the Peoples of Europe

# 04

## Structure and Content

Designing the most complete and comprehensive programs is always TECH's priority. Therefore, the graduate who accesses this Postgraduate Diploma will find hundreds of hours of the best theoretical, practical and additional content, compacted in a comfortable and accessible curriculum 100% online. In this way, they can work intensively on perfecting their skills, making use of the best and most innovative academic tools in the online university sector.





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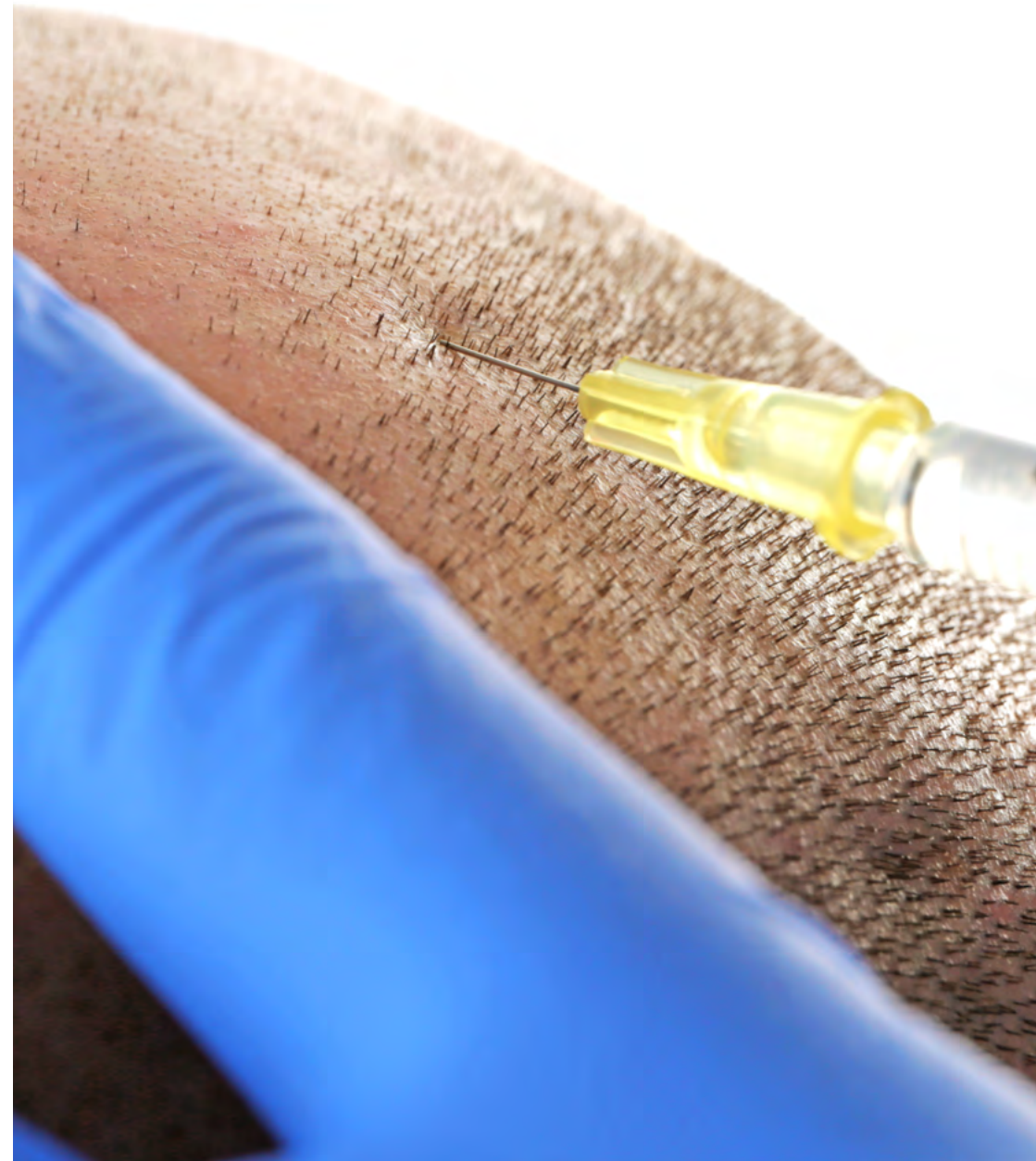
*Would you like to update your knowledge about trigger foods for hair diseases? In this program you will find a checklist for you to guide your patients through effective diet”*

## Module 1 Hair Disorders

- 1.1. Scalp Pathologies
  - 1.1.1. Dermatitis
    - 1.1.1.1. Dermatoses Affecting the Scalp
      - 1.1.1.1.1. Seborrheic Dermatitis
        - 1.1.1.1.1.1. Description and Origin
        - 1.1.1.1.1.2. Phases of Seborrheic Dermatitis
      - 1.1.1.1.2. Contact Dermatitis
        - 1.1.1.1.2.1. Contact Irritant
          - 1.1.1.1.2.1.1. Chemical Contact
          - 1.1.1.1.2.1.2. Physical Contact (Allergens)
        - 1.1.1.1.2.2. Photocontact or Photosensitive
          - 1.1.1.1.2.2.1. Phototoxic
          - 1.1.1.1.2.2.2. Photoallergic
      - 1.1.1.1.3. Erosive-Pustular Dermatitis
    - 1.1.1.2. Contact Dermatitis
  - 1.1.2. Pityriasis
    - 1.1.2.1. Pityriasis
    - 1.1.2.2. Cosmetic Pityriasis
    - 1.1.2.3. Pityriasis Simplex Capitis
    - 1.1.2.4. Steatoid Pityriasis
  - 1.1.3. Scalp Infections and Infestations
    - 1.1.3.1. Superficial Folliculitis (Ostiofolliculitis)
    - 1.1.3.2. Deep Folliculitis (Furunculosis and Carbuncles)
      - 1.1.3.2.1. Folliculitis Decalvans
    - 1.1.3.3. Keloid Folliculitis (Keloid Acne)
    - 1.1.3.4. Candidiasis Folliculitis
  - 1.1.4. Tinea Capitis
    - 1.1.4.1. Non-Inflammatory Tinea (Anthropophilic Dermatophytes)
    - 1.1.4.2. Inflammatory Tinea (By Zoophoric Dermatophytes)
  - 1.1.5. Seborrheic Dermatoses, Description and Types
    - 1.1.5.1. Real Seborrhea
    - 1.1.5.2. Two-Layer Seborrhea
    - 1.1.5.3. Apparent Seborrhea
    - 1.1.5.4. Four-Layer Seborrhea
    - 1.1.5.5. Lichen Planopilaris
    - 1.1.5.6. Pediculosis
    - 1.1.5.7. Capillary Psoriasis
      - 1.1.5.7.1. Exclusive Capillary Involvement: Seborrheic Psoriasis
      - 1.1.5.7.2. Plaques: Types
        - 1.1.5.7.2.1. Isolated
        - 1.1.5.7.2.2. Dispersed
        - 1.1.5.7.2.3. Scarce
- 1.2. Bromhidrosis
  - 1.2.1. Definition
  - 1.2.2. Causes
    - 1.2.2.1. Apocrine Sweating
    - 1.2.2.2. Eccrine Sweating
  - 1.2.3. Trigger Foods
    - 1.2.3.1. Other Triggers
  - 1.2.4. Symptoms
  - 1.2.5. Diagnosis
  - 1.2.6. Treatment
    - 1.2.6.1. Botox
    - 1.2.6.2. Liposuction
    - 1.2.6.3. Surgery
    - 1.2.6.4. Home Remedies
  - 1.2.7. Complications
    - 1.2.7.1. Trichomycosis
    - 1.2.7.2. Erythrasma
    - 1.2.7.3. Intertrigo
    - 1.2.7.4. Diabetes Mellitus Type II
    - 1.2.7.5. Obesity
- 1.3. Congenital Alopecia
  - 1.3.1. Universal
  - 1.3.2. Hereditary Hypotrichosis: Marie-Unna Type

- 1.3.3. Unclassified Types
  - 1.3.3.1. Localized:
    - 1.3.3.1.1. Aplasia
    - 1.3.3.1.2. Skin
  - 1.3.3.2. Triangular Alopecia
  - 1.3.3.3. Congenital Anonychia
- 1.3.4. Ectodermal Dysplasias
  - 1.3.4.1. Hydrotic
  - 1.3.4.2. Anhydrotic
- 1.3.5. Syndromes
  - 1.3.5.1. Autosomal Recessive Conditions
    - 1.3.5.1.1. Cockayne Syndrome
    - 1.3.5.1.2. Werner Syndrome
    - 1.3.5.1.3. Progeria
    - 1.3.5.1.4. Rothmund Syndrome
    - 1.3.5.1.5. Seckel Syndrome
    - 1.3.5.1.6. Menkes Syndrome
    - 1.3.5.1.7. Marinesco Syndrome
    - 1.3.5.1.8. Conradi Syndrome
    - 1.3.5.1.9. Dyskeratosis Congenita
    - 1.3.5.1.10. Cartilage-Hair Hypoplasia
    - 1.3.5.1.11. Enteropathic Acrodermatitis
    - 1.3.5.1.12. Syndromes: Tricho-Rhino-Phalangeal
    - 1.3.5.1.13. Homocystinuria
    - 1.3.5.1.14. Lamellar Ichthyosis
    - 1.3.5.1.15. Hartnut Disease
    - 1.3.5.1.16. Citrulinemia
    - 1.3.5.1.17. Tricorhinophalangeal Syndrome
- 1.3.6. Autosomal Dominant Conditions
  - 1.3.6.1. Pachyonychia Congenita
  - 1.3.6.2. Hallermann-Streiff Syndrome
  - 1.3.6.3. Oculo-Dento-Digital Syndrome
  - 1.3.6.4. Treacher-Collins Syndrome
  - 1.3.6.5. Popliteal Membrane Syndrome
- 1.3.7. AX-Linked Dominant Disorders
  - 1.3.7.1. Digital Orofacial Syndrome
  - 1.3.7.2. Incontinentia Pigmenti
  - 1.3.7.3. Focal Dermal Hypoplasia
- 1.3.8. AX-Linked Recessive Disorders
  - 1.3.8.1. Keratosis Follicularis Spinulosa Decalvans with Ophiasis
- 1.3.9. Chromosomal Aberrations
  - 1.3.9.1. Down Syndrome - Trisomy 11
  - 1.3.9.2. Trisomy A
- 1.4. Scarring Alopecia
  - 1.4.1. Definition
  - 1.4.2. Types
    - 1.4.2.1. Caused by the Body Itself
      - 1.4.2.1.1.1. Genetic Determinants
    - 1.4.2.2. Abnormalities
      - 1.4.2.2.1. Folliculitis Decalvans
      - 1.4.2.2.2. Keloid Acne
      - 1.4.2.2.3. Lupus Erythematosus
      - 1.4.2.2.4. Pustular Dermatitis
      - 1.4.2.2.5. Lichen Planus
      - 1.4.2.2.6. Frontal Fibrosing Alopecia (F.F.A.)
      - 1.4.2.2.7. Some Types of General Alopecia Areata
    - 1.4.2.3. Acquired
      - 1.4.2.3.1. Radiotherapy
      - 1.4.2.3.2. Burns
      - 1.4.2.3.3. Surgical
- 1.5. Other Classifications of Scarring Alopecia
  - 1.5.1. Lymphocytic Infiltrate
    - 1.5.1.1. Chronic Cutaneous Lupus Erythematosus
    - 1.5.1.2. Follicular Lichen Planus
    - 1.5.1.3. Pseudopelade of Brocq
    - 1.5.1.4. Central Centrifugal Cicatricial Alopecia

- 1.5.2. Neutrophilic Infiltrate:
  - 1.5.2.1. Folliculitis Decalvans
  - 1.5.2.2. Dissecting Cellulitis/Folliculitis
- 1.5.3. Mixed Infiltrate:
  - 1.5.3.1. Keloid Acne of the Nape
  - 1.5.3.2. Varioliform Necrotic Acne
  - 1.5.3.3. Erosive Pustular Dermatitis
- 1.5.4. Non-Specific Infiltrate:
  - 1.5.4.1. Scarring Alopecia in Final Stages
- 1.6. Non-Scarring Alopecia
  - 1.6.1. Definition
  - 1.6.2. Types
    - 1.6.2.1. Androgenetic Alopecia:
    - 1.6.2.2. Traumatic or External Agent Alopecia
      - 1.6.2.2.1. Trichotillomania
      - 1.6.2.2.2. Caused by Chemical Misuse
      - 1.6.2.2.3. Traction Alopecia
    - 1.6.2.3. Alopecia Areata
      - 1.6.2.3.1. Common Areata
      - 1.6.2.3.2. General Areata
    - 1.6.2.4. Drug and Pharmaceutical-Related Alopecia
      - 1.6.2.4.1. Vitamin A
      - 1.6.2.4.2. Anticoagulants
      - 1.6.2.4.3. Mercury
      - 1.6.2.4.4. Boric Acid
      - 1.6.2.4.5. Beta-Blockers
    - 1.6.2.5. Syphilitic Alopecia
      - 1.6.2.5.1. Description
      - 1.6.2.5.2. Features
    - 1.6.2.6. Alopecia Caused by Systemic Diseases
      - 1.6.2.6.1. Infectious
      - 1.6.2.6.2. Endocrine
      - 1.6.2.6.3. Nutritional Deficiency
    - 1.6.2.7. Effluvia



- 1.6.3. Histopathological Signs
  - 1.6.3.1. Androgenetic Alopecia
    - 1.6.3.1.1. Hair Follicle Miniaturization
    - 1.6.3.1.2. Sebaceous Pseudohyperplasia
  - 1.6.3.2. Telogen Effluvium
    - 1.6.3.2.1. Predominance of Hair Follicles in Telogen Phase
    - 1.6.3.2.2. Absence of Significant Histopathological Changes
  - 1.6.3.3. Alopecia Areata
    - 1.6.3.3.1. Peri and Intrabulbar Lymphocytic Infiltrate (Honeycomb Hyperpigmentation)
    - 1.6.3.3.2. Several Follicles of the Biopsy in the Same Evolutionary Phase
    - 1.6.3.3.3. Reversal of the Anagen-Telogen Ratio
  - 1.6.3.4. Syphilitic Alopecia
    - 1.6.3.4.1. Abundance of Plasma Cells in the Inflammatory Infiltrate
    - 1.6.3.4.2. Presence of Treponema Pallidum with HI stains
  - 1.6.3.5. Trichotillomania
    - 1.6.3.5.1. Absence of Peribulbar Inflammatory Infiltrate
    - 1.6.3.5.2. Trichomalacia
    - 1.6.3.5.3. Incontinentia Pigmenti
    - 1.6.3.5.4. Intra and Perifollicular Hemorrhages
  - 1.6.3.6. Traction Alopecia
    - 1.6.3.6.1. Similar to Trichotillomania
    - 1.6.3.6.2. Diminution of Terminal Hair Follicles
- 1.7. Hypertrichosis
  - 1.7.1. General
    - 1.7.1.1. Primary or Congenital
      - 1.7.1.1.1. Universal Hypertrichosis or Ambras Syndrome
      - 1.7.1.1.2. Congenital Hypertrichosis Lanuginosa
      - 1.7.1.1.3. Prepubertal Hypertrichosis
      - 1.7.1.1.4. Acquired Hypertrichosis Lanuginosa
    - 1.7.1.2. Secondary or Acquired
      - 1.7.1.2.1. Caused by Drugs or Medication
      - 1.7.1.2.2. Caused by Systemic Diseases
  - 1.7.2. Localized

- 1.8. Hirsutism
  - 1.8.1. Ovarian SAHA Syndrome
  - 1.8.2. Adrenal SAHA Syndrome
  - 1.8.3. SAHA Syndrome with Hyperprolactinemia
  - 1.8.4. SOP
  - 1.8.5. Hypophyseal Hirsutism
  - 1.8.6. Drug Use
  - 1.8.7. Liver Diseases
- 1.9. Hyperhidrosis
  - 1.9.1. Definition
  - 1.9.2. Diagnosis
  - 1.9.3. Causes
    - 1.9.3.1. Primary
    - 1.9.3.2. Diffuse
  - 1.9.4. Treatment
    - 1.9.4.1. Antiperspirants
    - 1.9.4.2. Anticholinergics
    - 1.9.4.3. Iontophoresis
    - 1.9.4.4. Botox
    - 2.9.4.5. Microwave Thermolysis

## Module 2. Androgenetic Alopecia

- 2.1. Features
  - 2.1.1. Evolutionary Development
  - 2.1.2. Physiological or Non-Physiological
  - 2.1.3. Mediated by Two Factors: Genetic and Androgenic
- 2.2. Evolution
  - 2.2.1. Hamilton for Boys
  - 2.2.2. Ludwig for Girls
- 2.3. Pathophysiology
  - 2.3.1. Genetic Receptors of the Male Hormone
  - 2.3.2. An Enzyme the 5alpha-Reductase
  - 2.3.3. DHT
- 2.4. Men

- 2.5. Women
  - 2.5.1. Physiology
  - 2.5.2. Hormonal
  - 2.5.3. Genetics
  - 2.5.4. Study of the Hypothalamic-Pituitary-Pituitary-Adrenal-Ovarian Axis
- 2.6. Consequences
- 2.7. AGA Study: Inclusion in Therapeutic Algorithm
  - 2.7.1. Clinical History with Oriented Anamnesis
  - 2.7.2. Macro and Micro Exploration with Use of Dermatoscopes and Micro Cameras
  - 2.7.3. Taking Photographs
  - 2.7.4. Traction Test
  - 2.7.5. Trichogram:
    - 2.7.5.1. Optical Microscope: 20-50 Hairs
    - 2.7.5.2. Classification of Growth Phases: Anagen (85%) (1-2%) and Telogen (10-15%)
    - 2.7.5.3. Daily Hair Loss
    - 2.7.5.4. Features
  - 2.7.6. Wood Light
  - 2.7.7. Biopsy
  - 2.7.8. Targeted Analysis
  - 2.7.9. Diagnostic Approach
    - 2.7.9.1. Inclusion in Therapeutic Algorithm: Baldness Prevention
  - 2.7.10. According to Resolution
    - 2.7.10.1. Easily Resolved: Seasonal or Cyclic, Androgenetic (MAGA and FAGA), Menopausal and Senile. Effluvium
    - 2.7.10.2. Potentially Resolvable: Pathogen-Mediated
      - 2.7.10.2.1. Psychogenic due to Stress
      - 2.7.10.2.2. Traction and Trichotillomania
      - 2.7.10.2.3. Deficiency (Dietary, Anemic, Vitamin Deficiency)
      - 2.7.10.2.4. Chronic Effluvium
      - 2.7.10.2.5. Hormonal/Androgenic
      - 2.7.10.2.6. Thyrogenic
      - 2.7.10.2.7. Immunogenic
      - 2.7.10.2.8. Chemotherapy
      - 2.7.10.2.9. Collagenosis
      - 2.7.10.2.10. Areata
      - 2.7.10.2.11. Infectious (Bacterial, Mycotic, Syphilis)
      - 2.7.10.2.12. More Common in Women: Multi-Factorial
    - 2.7.10.3. Difficult to Resolve
      - 2.7.10.3.1. Congenital Cicatricial
      - 2.7.10.3.2. FFA
      - 2.7.10.3.3. Physical
      - 2.7.10.3.4. Infections
      - 2.7.10.3.5. Tumours
      - 2.7.10.3.6. Dermatosis (Lupus, Liquefactive, Psoriasis, etc)
- 2.8. Treatment
  - 2.8.1. Cosmetic
    - 2.8.1.1. Cleaning and Hygiene: Appropriate Shampoo
    - 2.8.1.2. Moisturizes, Nourishes and Repairs the Hair Shaft
    - 2.8.1.3. Powders, Dyes, Volumizing Sprays and Special Hairstyles
    - 2.8.1.4. Keratin Microfibers
    - 2.8.1.5. Extensions and Protheses
  - 2.8.2. Diet: Balanced Diet
    - 2.8.2.1. Amino Acids: L-Cysteine
    - 2.8.2.2. Vitamins: B12, Biotin, Folic Acid, etc.
    - 2.8.2.3. Trace Elements: Zinc, Fe, Se, etc.
  - 2.8.3. Topical
    - 2.8.3.1. Non-Specific
      - 2.8.3.1.1. Shampoos: Antimycotics, Antipsoriatics, Keratolytics, etc.
      - 2.8.3.1.2. Creams, Lotions, Gels, etc.
      - 2.8.3.1.3. Corticosteroids, Antibiotics, Seboregulators, etc.
    - 2.8.3.2. Specific
      - 2.8.3.2.1. Lotions or Foams
      - 2.8.3.2.2. Spironolactone 2%
      - 2.8.3.2.3. Canrenone 2%

- 2.8.3.2.4. Progesterone 0.025%
- 2.8.3.2.5. 17-alpha-estradiol 0.025-0.05%
- 2.8.3.2.6. Minoxidil 2-5%
- 2.8.3.2.7. Ac. Retinoic Acid 0.025-0.05%
- 2.8.3.2.8. Alpha-Tocopherol Nicotinate 5%
- 2.8.4. Local
  - 2.8.4.1. Drug Dermoinfiltration
    - 2.8.4.1.1. Roller
    - 2.8.4.4.2. Dermojet
    - 2.8.4.4.3. Hair Mesotherapy
    - 2.8.4.4.4. Carboxytherapy
  - 2.8.4.2. Micropigmentation
  - 2.8.4.3. Biological Therapies PRP and Stem Cells
  - 2.8.4.4. Electrophysical Therapy
    - 2.8.4.4.1. Transportation and Ionization
    - 2.8.4.4.2. Infrared and Low Frequency Lasers
  - 2.8.4.5. Capillary Surgery
- 2.8.5. Systemic
  - 2.8.5.1. Underlying Pathology
    - 2.8.5.1.1. Anti-Fungals/Antibiotics, Thyroid, Anxiolytics, Corticosteroids
  - 2.8.5.2. Androgenetic (AGA) Factor
    - 2.8.5.2.1. Finasteride
    - 2.8.5.2.2. Dutasteride
    - 2.8.5.2.3. Oral Minoxidil
  - 2.8.5.3. Androgenetic Factors: Antiandrogens
    - 2.8.5.3.1. Central: Cyproterone with/without Estradiol
    - 2.8.5.3.2. Peripheral: Spironolactone
    - 2.8.5.3.3. Adrenal: Prednisone and Deflazacort
- 2.9. Specific Techniques
  - 2.9.1. Hair Mesotherapy
  - 2.9.2. Hair Micrografts
  - 2.9.3. Biological Therapies
    - 2.9.3.1. Plasma
    - 2.9.3.2. Stem Cells

### Module 3. Effluvia

- 3.1. Concept of Effluvium
- 3.2. Epidemiology
- 3.3. Effluvia Classification
- 3.4. Guided Clinical History
- 3.5. Acute Anagen Effluvium
  - 3.5.1. Pathophysiology of Acute Anagen Effluvium
  - 3.5.2. Diagnosis of Acute Anagen Effluvium
    - 3.5.2.1. Types of Acute Anagen Effluvium
    - 3.5.2.2. Chemotherapy-Induced Dystrophic Effluvium
    - 3.5.2.3. Radiotherapy-Induced Dystrophic Effluvium
    - 3.5.2.4. Toxin-Induced Dystrophic Effluvium
- 3.6. Chronic Anagen Effluvium
  - 3.6.1. Pathophysiology of Chronic Anagen Effluvium
  - 3.6.2. Diagnosis of Chronic Anagen Effluvium
- 3.7. Acute Telogen Effluvium
  - 3.7.1. Pathophysiology of Acute Telogen Effluvium
  - 3.7.2. Diagnosis of Acute Telogen Effluvium
  - 3.7.3. Types of Acute Telogen Effluvium
- 3.8. Chronic Telogen Effluvium
  - 3.8.1. Pathophysiology of Chronic Telogen Effluvium
  - 3.8.2. Diagnosis of Chronic Telogen Effluvium
- 3.9. Differential Diagnosis of Chronic Telogen Effluvium
- 3.10. Effluvia Treatment
- 3.11. Algorithm for Managing Patients with Diffuse Capillary Leakage

# 04

# 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.







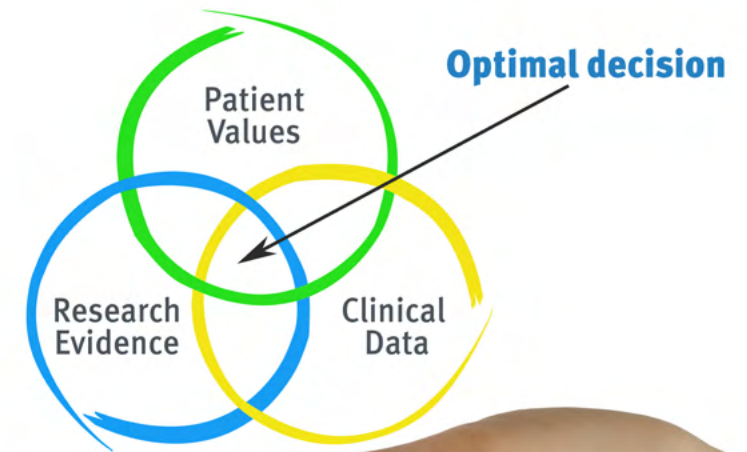
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*Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"*

## 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. Gervas, 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.

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*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.*



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.





#### 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

This Postgraduate Diploma in Hair Transplantation: Capillary Diseases. Androgenetic Alopecia and Effluvium guarantees you, in addition to the most rigorous and updated training, access to a Postgraduate Diploma issued by TECH Technological University.





“

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

This **Postgraduate Diploma in Hair Transplantation: Capillary Diseases. Androgenetic Alopecia and Effluvium** contains the most complete and up-to-date scientific program on the market.

After the student has passed the assessments, they will receive their corresponding **Postgraduate Diploma** issued by **TECH Technological University** via tracked delivery\*.

The certificate issued by **TECH Technological University** will reflect the qualification obtained in the Postgraduate Diploma, and meets the requirements commonly demanded by labor exchanges, competitive examinations, and professional career evaluation committees.

Title: **Postgraduate Diploma in Hair Transplantation: Capillary Diseases. Androgenetic Alopecia and Effluvium**

Official N° of hours: **450 h.**



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

future

health confidence people

education information tutors

guarantee accreditation teaching

institutions technology learning

community commitment

personalized service innovation

knowledge present

development language

virtual classroom

**tech** technological  
university

**Postgraduate Diploma**

Hair Transplantation:  
Capillary Diseases.  
Androgenetic Alopecia  
and Effluvium

Course Modality: Online

Duration: 6 months

Certificate: TECH Technological University

Official N° of hours: 450 h.

# Postgraduate Diploma

Hair Transplantation: Capillary  
Diseases. Androgenetic  
Alopecia and Effluvium

