# ETHNIC DERMATOLOGY Principles and Practice

Edited by Ophelia E. Dadzie, Antoine Petit and Andrew F. Alexis

## **WILEY-BLACKWELL**

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# Ethnic Dermatology Principles and Practice

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## Foreword

*Ethnic Dermatology* is being published during a renaissance in the study of human variation, when studies of the significance of variation in human skin have gained new importance and legitimacy. For most of the history of dermatology, human skin was "White," northern European skin. White skin was the normal human condition, from others deviated. Dermatology rose which all as an independent discipline during the late 18th and early 19th centuries. at the same time as naturalists and anthropologists describina were human races and philosophers were arguing for hierarchical ranking of those races. People with moderately or darkly pigmented skin were viewed by many at that time as lesser beings and the normal properties of their skin were seen as pathological by definition. The need for books like *Ethnic Dermatology* today arose from the misconceptions about the nature of normal variation in human skin that developed in those benighted times. As institutional and governmentally sanctioned racism declined worldwide in the late 20th century. knowledge and appreciation of the importance of variation in the properties of human skin increased. This promising trend was retarded, ironically, by the power of popular social movements which advocated equality among races and sexes in all matters and which viewed the study of human variation as inherently divisive and socially destructive. Dermatology, more than other medical specialties, is subject to the vicissitudes of social and political movements because it deals with the organ that is humankind's most visible interface with the physical and social environment.

Dermatologists working to describe and study "ethnic" skin or skin of color and its diseases face many practical

problems, one of the most serious being an impoverished vocabulary with which to describe variation. The glossary of descriptive medical terms for skin pigmentation is bereft of accurate and precise words to describe hues, shades, and tints of skin color. "Darkly," "richly," and "moderately" pigmented are commonly used in medicine and are socially acceptable, but are miserably imprecise and are less exact than the rich colloquialisms they seek to replace. The Fitzpatrick scale of skin phototypes, which has dominated dermatology for nearly a half century, is also deficient because it is based on subjective assessment of one phenotypic trait, tanning ability. While this classification method can broadly inform us of an individual's sun sensitivity and likelihood of developing skin cancer, tanning ability is not determined by a single gene or a single unique set of genes nor is it necessarily informative of other immunological or physiological properties of skin that are relevant to disease susceptibility. Genetic and genomic studies have revealed that pigmentation phenotypes have evolved multiple times as modern humans have dispersed out of and back into the tropics. We now know that lightly pigmented ("White") skin seen in natives of Berlin and Beijing, for example, was the product of two independent genetic mutation events leading to the evolution of two lineages that inhabit depiamented human came to Europe Asia. northwestern and northeastern The classification of these two individuals as Fitzpatrick type II is of limited usefulness. Similarly, natives of Brasilia, Cape Town, and Naples who are classified as Fitzpatrick type IV are likely to have three different sets of pigmentation gene polymorphisms contributing to their enhanced tanning abilities. The point here is that we are in need of new ways of defining and describing the normal range of variation present in healthy human skin because the current vocabularv scales for describing variation and are inadequate and outdated. The genetic bases for the complex mixtures of melanins and keratins found in skin, and for the interaction of these with various immunoglobulin isotypes, are now beginning to be understood and their significance for health and disease appreciated. As this body of information grows, and our understanding of individual responses to environmental insults develops apace, dermatology will truly come of age.

The synthesis of knowledge on skin and skin diseases presented in *Ethnic Dermatology* is inspiring and provides the foundation for a modern and comprehensive science of dermatology that is based on an inclusive concept of "normal human skin," including its aging and scarring characteristics and susceptibility to disease. Specialists in ethnic dermatology will find this book to be an excellent guide, but also a call to action. This field requires much more research and many more avid clinicians and scientists interested in carrying out that research. This book is your starting point.

> Nina G. Jablonski, PhD Distinguished Professor of Anthropology Pennsylvania State University Pennsylvania, PA, USA

## Preface

In the face of life's many challenges we have to askourselves why do we do what we do? This simple question is one we have had to reflect upon prior to and during the writing and editing of this textbook. For us the answer to this question is simple: a need to make a difference and/or impact in our community, combined with a genuine interest and passion for the subject matter.

Broadly speaking, mainstream dermatology in most western countries continues to have a eurocentric standard and viewpoint, despite an increasing interest worldwide in the issue of ethnic dermatology. This has primarily been driven by the changing demographics of most western countries, coupled with the emerging economies of many African and Asian countries. While several textbooks now exist on this topic, most originate from the USA, giving an American perspective to this issue.

The purpose of *Ethnic Dermatology: Principles and Practice* is to provide a comprehensive, yet practical perspective of the subject matter. Both medical and cosmetic dermatology are extensively covered in this textbook. Ample use of goodquality clinical images supplements the text, which are all clinically relevant. Furthermore, there is an excellent foreword written by Professor Nina Jablonski discussing the issue of terminologies pertaining to ethnic dermatology.

This textbook will suit clinical dermatologists, primary care physicians, physicians from other specialties, and specialist nurses. It is our hope that all will find this book of direct relevance to their daily clinical practice. Long-term, we also hope that textbooks such as this will encourage acceptance and incorporation of ethnic dermatology into mainstream dermatology forums in many western countries.

*Ophelia E. Dadzie Antoine Petit Andrew F. Alexis* 

# **List of Abbreviations**

AD	atopic dermatitis
AJCC	American Joint Committee on Cancer
AKN	acne keloidalis nuchae
ALM	acral lentiginous melanoma
AP	actinic prurigo
ARV	antiretroviral drugs
ART	antiretroviral therapy
ATL	adult T-cell lymphoma
ATLL	adult T-cell lymphoma/leukemia
AZT	zidovudine
BCC	basal cell carcinoma
BMZ	basement membrane zone
CAD	chronic actinic dermatitis
CBPL	cutaneous B-cell pseudolymphoma
CCCA	central centrifugal cicatricial alopecia
CCLE	chronic cutaneous lupus erythematosus
CGPD	childhood granulomatous periorificial dermatitis
СРК	creatine phosphokinase
CRP	confluent and reticulate papillomatosis
cSLE	childhood-onset systemic lupus erythematosus
CTCL	cutaneous T-cell lymphoma
CTGF	connective tissue growth factor

CTPL	cutaneous T-cell pseudolymphoma
DCS	dissecting cellulitis of the scalp
DEJ	dermo-epidermal junction
DFSP	dermatofibrosarcoma protuberans
DLCO	diffusing capacity of the lung for carbon monoxide
DMSO	dimethylsulfoxide
DOC	disorders of cornification
DPN	dermatosis papulosa nigra
DRESS	drug reactions (or rashes) with eosinophilia and systemic symptoms
DRI	disseminate and recurrent infundibulofolliculitis
EASI	Eczema Area and Severity Index
EBV	Epstein-Barr virus
ECM	extracellular matrix
EGFR	epidermal growth factor receptor
ENT	ear, nose, and throat
EV	epidermodysplasia verruciformis
EVCH	eruptive vellus hair cysts
FACE	facial Afro-Caribbean childhood eruption
FAMMM	familial atypical multiple mole melanoma syndrome
FBGCR	foreign body giant cell reaction
FPHL	female pattern hair loss
FD	folliculitis decalvans
FDE	fixed drug eruptions

FFA	frontal fibrosing alopecia
FHP	facial hyperpigmentation
FKN	folliculitis keloidalis nuchae
FSP/FST	Fitzpatrick skin phototype/type
FUE	follicular unit extraction
FVC	forced vital capacity
G6PD	glucose-6-phosphate dehydrogenase
GA	glycolic acid
GRK	G-protein-coupled receptor kinase
GVHD	graft-versus-host disease
GWAS	genome-wide association studies
HAART	highly active antiretroviral therapy
HHV	human herpes virus
HIFU	high-intensity focused ultrasound
HIV	human immunodeficiency virus
HLA	human leukocyte antigen
HPV	human papilloma virus
HS	hidradenitis suppurativa
HSE	hydrocortisone, silicon and vitamin E lotion
HSV	herpes simplex virus
НТ	hair transplantation
HTLV	human T-lymphotropic virus
HTS	hypertrophic scars
IGA	Investigator Global Assessment
IGH	idiopathic guttate hypomelanosis

IH	infantile hemangioma
IK	inverse keratoderma
IP	inflammatory pigmentations
IP	Lintense pulsed light
IRS	immune reconstitution syndrome
ISD	infantile seborrheic dermatitis
IUS	intense ultrasound
IVIG	intravenous immunoglobulin
КР	keratosis pilaris
КРС	keratosis punctata of the palmar creases
KS	Kaposi's sarcoma; keloid scars
LE	lupus erythematosus
LED	light-emitting diode
LN	lichen nitidus
LP	lichen planus
LPP	lichen planopilaris
ΜΑΙ	Mycobacterium avium-intracellulare
MAP	magnesium-L-ascorbyl-2 phosphate
MASI	Melasma Area and Severity Index
MB	multibacillary
MED	minimal erythema dose
MF	mycosis fungoides
MFU	multifollicular unit
МК	marginal keratoderma
МКТР	melanocytes-keratinocytes transplantation

male pattern hair loss
melanocyte stimulating hormone
Mycobacterium tuberculosis
microthermal zone
narrowband-UVB
neonatal lupus erythematosus
non-nucleoside reverse transcriptase inhibitor
nucleoside reverse transcriptase inhibitor
nonsegmental vitiligo
over-the-counter
pityriasis alba
protease-activated receptor 2
psoriasis area and severity index
paucibacillary
primary cutaneous amyloidosis; principal component analysis
primary cutaneous B-cell lymphoma
primary cutaneous follicle centre lymphoma
primary cutaneous marginal zone lymphoma
platelet-derived growth factor
platelet-derived growth factor receptor
premature desquamation of the inner root sheath
pulsed dye laser
positron emission tomography
pseudofolliculitis barbae

PHACES	Posterior fossa abnormalities, Hemangioma- large, segmental, Arterial lesions, Cardiac/coarctation findings, Eye abnormalities, and Sternal abnormalities
PIH	postinflammatory hyperpigmentation
PMLE	polymorphous light eruption
<b>ΡΡΑ</b> Rγ	peroxisome proliferator-activated receptor gamma
PPD	paraphenylenediaminePPD
PPE	papular pruritic eruption
РРК	palmoplantar keratoderma
PR	pityriasis rosea
PUVA	psoralen plus ultraviolet light-A
PUVA	solpsoralen plus sunlight
PV	pityriasis versicolor
RegisCAR	Registry of severe cutaneous adverse reactions to drugs and collection of biological samples
RF	radiofrequency
RLX	relaxin
RSTL	relaxed skin-tension line
SA	Staphylococcus aureus
SCC	squamous cell carcinoma
SCLE	subacute cutaneous lupus erythematosus
SCORAD	Scoring Atopic Dermatitis Scale
SD	seborrheic dermatitis
SJS	Stevens-Johnson's syndrome
SLE	systemic lupus erythematosus