

Part I Basic Science

1	Function of Filaggrin and Its Metabolites	3
	Sanja Kezic	
2	Morphology of Filaggrin-Depleted Epidermis	9
	Robert Gruber	
3	Stratum Corneum Lipids and Filaggrin	23
	Jakob Mutanu Jungersted	
4	Inflammatory-Driven Depletion of Filaggrin Proteins	27
	Christian Vestergaard and Mette S. Deleuran	
5	Immune Activity and Vitamin D	37
	Charlotte M. Bonefeld, Morten M. Nielsen, and Carsten Geisler	
6	Filaggrin-2	49
	Jens-Michael Schröder and Britta Hansmann	

Part II Identification and Study Methods

7	Animal Models	65
	Kozo Nakai, Kozo Yoneda, and Yasuo Kubota	
8	In Vitro Models of Filaggrin-Associated Diseases.	75
	Sarah Küchler	
9	Mapping Posttranslational Regulation of Filaggrin Using Phosphoproteomics	83
	David L. Stenoien	
10	Noninvasive Detection of Filaggrin Molecules by Raman Spectroscopy	93
	Francisco J. González	
11	Filaggrin Genotyping.	103
	Pal B. Szecsi and Michael Meldgaard	

Part III Epidemiology and Environmental Exposures

12	Prevalence of Filaggrin Gene Mutations: An Evolutionary Perspective.	119
	Marten C.G. Winge and Maria Bradley	
13	Filaggrin Gene Mutations in Asian Races	129
	Ruhong Cheng, Ming Li, Hui Zhang, and Zhirong Yao	
14	Filaggrin Gene Loss-of-Function Mutations and Exposure to Endocrine Disrupting Environmental Chemicals.	137
	Ulla N. Joensen and Jacob P. Thyssen	

Part IV Filaggrin and Atopic Disease

15	Filaggrin Mutations and the Atopic March.	143
	Jennifer R. Heimall and Jonathan M. Spergel	
16	Atopic Dermatitis.	153
	Teresa Tsakok and Carsten Flohr	
17	Asthma	169
	Simon F. Thomsen	
18	Filaggrin Mutations, Skin Barrier Dysfunction, and Sensitization in Allergic Rhinitis.	183
	Tatiana A. Vogel and Marie-Louise A. Schuttelaar	
19	Filaggrin and Non-cutaneous Disease: Food Allergy	195
	Hern Tze Tina Tan and Katrina J. Allen	
20	Filaggrin in Canine Skin	209
	Gunnaporn Suriyaphol, Sirin Theerawatanasirikul, and Prapat Suriyaphol	

Part V Filaggrin and Cutaneous Disease

21	Ichthyosis Vulgaris and Other Disorders of Cornification.	223
	Sreya Talasila and Amy S. Paller	
22	Xerosis Means “Dry Skin”: Mechanisms, Skin Conditions, and Its Management.	235
	Ana M. Gimenez-Arnau	
23	Allergic Contact Dermatitis	251
	Wolfgang J.C. Uter	
24	Irritant Contact Dermatitis.	259
	Sanja Kezic and Maaïke J. Visser	
25	Hand Eczema	263
	Richard Brans and Swen Malte John	
26	Filaggrin in Psoriasis	273
	Peter Jensen and Lone Skov	

27	Filaggrin and Skin Infections	279
	Emily Y. Gan, Sophie C.S. Cai, and Mark B.Y. Tang	
28	Atopic Dermatitis and Skin Cancer	293
	Lennart Emtestam, Lena Hagströmer, and Karin Sartorius	
29	Filaggrin Gene Mutations: A Clinician's Perspective	301
	David Bregnbak, Claus O.C. Zachariae, and Torkil Menné	

Part VI Filaggrin and Non-cutaneous Disease

30	Filaggrin, the Skin Barrier, and Diabetes	311
	Elena Godoy-Gijón	
31	The Eye and Filaggrin	321
	Anne Sofie Lund Bateman and Steffen Heegaard	
32	Filaggrin Dysfunction and Its Association with Inflammatory Conditions of the GI Tract	327
	Andreas P. Thyssen and Erik P. Thyssen	
33	Filaggrin, Human Papillomavirus, and the Cervix	333
	Simon W. Fage, Thomas Iftner, Jacob P. Thyssen, and Susanne K. Kjaer	
34	Antibodies Against Citrullinated Proteins and Filaggrin	343
	Katleen F.E. Van Steendam and Dieter L. Deforce	
35	Filaggrin and the Oral Mucosa	351
	Anne Marie Lynge Pedersen and Jesper Reibel	

Part VII Management

36	Therapeutics and Other Interventions	359
	Berit Christina Carlsen	