

# Christian E H Schmelzer

## List of Publications by Year in descending order

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66  
papers

2,377  
citations

186265

28  
h-index

223800

46  
g-index

67  
all docs

67  
docs citations

67  
times ranked

2902  
citing authors

#	ARTICLE	IF	CITATIONS
1	A guide to the composition and functions of the extracellular matrix. FEBS Journal, 2021, 288, 6850-6912.	4.7	320
2	Protein carbamylation is a hallmark of aging. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 1191-1196.	7.1	156
3	The nature and extent of contributions by defective ribosome products to the HLA peptidome. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E1591-9.	7.1	109
4	Elastin-Derived Peptides Are New Regulators of Insulin Resistance Development in Mice. Diabetes, 2013, 62, 3807-3816.	0.6	87
5	Molecular-level insights into aging processes of skin elastin. Biochimie, 2016, 128-129, 163-173.	2.6	87
6	Degradation of tropoelastin by matrix metalloproteinasesâ€™ cleavage site specificities and release of matrikines. FEBS Journal, 2010, 277, 1939-1956.	4.7	81
7	Peptic digestion of Î²-casein. Journal of Chromatography A, 2007, 1166, 108-115.	3.7	73
8	Cadmium toxicity investigated at the physiological and biophysical levels under environmentally relevant conditions using the aquatic model plant <i>Ceratophyllum demersum</i> . New Phytologist, 2016, 210, 1244-1258.	7.3	62
9	Mapping of macrophage elastase cleavage sites in insoluble human skin elastin. Matrix Biology, 2008, 27, 420-428.	3.6	57
10	Separation and mass spectrometric characterization of covalently bound skin ceramides using LC/APCI-MS and Nano-ESI-MS/MS. Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences, 2007, 852, 562-570.	2.3	56
11	Does human leukocyte elastase degrade intact skin elastin?. FEBS Journal, 2012, 279, 4191-4200.	4.7	53
12	Lysyl oxidaseâ€™like 2 (LOXL2)â€™mediated cross-linking of tropoelastin. FASEB Journal, 2019, 33, 5468-5481.	0.5	53
13	Elastin is heterogeneously cross-linked. Journal of Biological Chemistry, 2018, 293, 15107-15119.	3.4	52
14	The action of neutrophil serine proteases on elastin and its precursor. Biochimie, 2012, 94, 192-202.	2.6	51
15	Characterization of honeybee venom by MALDI-TOF and nanoESI-QqTOF mass spectrometry. Journal of Pharmaceutical and Biomedical Analysis, 2011, 54, 273-278.	2.8	49
16	In vitro degradation of human tropoelastin by MMP-12 and the generation of matrikines from domain 24. Matrix Biology, 2009, 28, 84-91.	3.6	45
17	Acoustic investigations of pseudo-stable structures in aqueous solutions of polyethylene glycols. Journal of Molecular Structure, 2004, 699, 47-51.	3.6	42
18	Mass spectrometric characterization of peptides derived by peptic cleavage of bovine Î²-casein. Journal of Chromatography A, 2004, 1055, 87-92.	3.7	42

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19	Elastic fibers: formation, function, and fate during aging and disease. FEBS Journal, 2022, 289, 3704-3730.	4.7	41
20	Characterization of peptides resulting from digestion of human skin elastin with elastase. Proteins: Structure, Function and Bioinformatics, 2005, 61, 649-657.	2.6	38
21	Skin Ceramide Alterations in First-Episode Schizophrenia Indicate Abnormal Sphingolipid Metabolism. Schizophrenia Bulletin, 2013, 39, 933-941.	4.3	38
22	Identification of CD36 as a new interaction partner of membrane NEU1: potential implication in the pro-atherogenic effects of the elastin receptor complex. Cellular and Molecular Life Sciences, 2019, 76, 791-807.	5.4	35
23	Unique molecular networks: Formation and role of elastin crosslinks. IUBMB Life, 2020, 72, 842-854.	3.4	35
24	Towards a molecular characterization of pharmaceutical excipients: Mass spectrometric studies of ethoxylated surfactants. International Journal of Pharmaceutics, 2006, 319, 1-12.	5.2	34
25	Insights into the degradation of human elastin by matrilysin-1. Biochimie, 2011, 93, 187-194.	2.6	33
26	MMP-12 catalytic domain recognizes and cleaves at multiple sites in human skin collagen type I and type III. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2010, 1804, 731-739.	2.3	31
27	Production of Elastin-Derived Peptides Contributes to the Development of Nonalcoholic Steatohepatitis. Diabetes, 2018, 67, 1604-1615.	0.6	31
28	Extracellular Matrix Stiffness and Composition Regulate the Myofibroblast Differentiation of Vaginal Fibroblasts. International Journal of Molecular Sciences, 2020, 21, 4762.	4.1	30
29	Mass spectrometric characterization of human skin elastin peptides produced by proteolytic digestion with pepsin and thermitase. Journal of Chromatography A, 2005, 1083, 120-126.	3.7	29
30	Molecular-level characterization of elastin-like constructs and human aortic elastin. Matrix Biology, 2014, 38, 12-21.	3.6	29
31	Investigation of the Molecular Structure of the Human Stratum Corneum Ceramides [NP] and [EOS] by Mass Spectrometry. Skin Pharmacology and Physiology, 2011, 24, 127-135.	2.5	27
32	Shotgun proteome analysis of honeybee venom using targeted enrichment strategies. Toxicon, 2014, 90, 255-264.	1.6	27
33	A comprehensive map of human elastin crosslinking during elastogenesis. FEBS Journal, 2019, 286, 3594-3610.	4.7	26
34	Investigations on the activation of recombinant microbial pro-transglutaminase: in contrast to proteinase K, dispase removes the histidine-tag. Amino Acids, 2012, 42, 997-1006.	2.7	25
35	Effect of Different Crosslinking Strategies on Physical Properties and Biocompatibility of Freestanding Multilayer Films Made of Alginate and Chitosan. Macromolecular Bioscience, 2019, 19, e1900181.	4.1	23
36	Investigating the Role of (S)-4-R-4-Hydroxyproline in Elastin Model Peptides. Biomacromolecules, 2013, 14, 4278-4288.	5.4	22

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37	Structure and Activity of <i>Aspergillus nidulans</i> Copper Amine Oxidase. <i>Biochemistry</i> , 2011, 50, 5718-5730.	2.5	21
38	Longevity of elastin in human intervertebral disc as probed by the racemization of aspartic acid. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2012, 1820, 1671-1677.	2.4	21
39	Degradation of tropoelastin and skin elastin by neprilysin. <i>Biochimie</i> , 2018, 146, 73-78.	2.6	21
40	Exploring the pH-Induced Functional Phase Space of Human Serum Albumin by EPR Spectroscopy. <i>Magnetochemistry</i> , 2018, 4, 47.	2.4	21
41	Polyelectrolyte multilayers of poly (l-lysine) and hyaluronic acid on nanostructured surfaces affect stem cell response. <i>Nanoscale</i> , 2019, 11, 2878-2891.	5.6	21
42	Expression of elastolytic cathepsins in human skin and their involvement in age-dependent elastin degradation. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2020, 1864, 129544.	2.4	21
43	Prolyl hydroxylation in elastin is not random. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2016, 1860, 2169-2177.	2.4	19
44	Role for <i>Cela1</i> in Postnatal Lung Remodeling and Alpha-1 Antitrypsin-Deficient Emphysema. <i>American Journal of Respiratory Cell and Molecular Biology</i> , 2018, 59, 167-178.	2.9	19
45	In vitro cross-linking of elastin peptides and molecular characterization of the resultant biomaterials. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2013, 1830, 2994-3004.	2.4	17
46	Risperidone-Loaded PLGA-Lipid Particles with Improved Release Kinetics: Manufacturing and Detailed Characterization by Electron Microscopy and Nano-CT. <i>Pharmaceutics</i> , 2019, 11, 665.	4.5	16
47	Real-time monitoring of peptic and tryptic digestions of bovine $\beta$ -casein using quartz crystal microbalance. <i>Analytica Chimica Acta</i> , 2007, 584, 72-77.	5.4	14
48	Elastins from patients with Williams-Beuren syndrome and healthy individuals differ on the molecular level. <i>American Journal of Medical Genetics, Part A</i> , 2016, 170, 1832-1842.	1.2	13
49	MMP-14 degrades tropoelastin and elastin. <i>Biochimie</i> , 2019, 165, 32-39.	2.6	13
50	Screening for Nutritive Peptides That Modify Cholesterol $\beta$ -Hydroxylase Expression. <i>Journal of Agricultural and Food Chemistry</i> , 2008, 56, 4987-4994.	5.2	12
51	Isolation and structural characterization of glucosylceramides from Ethiopian plants by LC/APCI-MS/MS. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2017, 141, 241-249.	2.8	12
52	Fingerprinting Desmosine-Containing Elastin Peptides. <i>Journal of the American Society for Mass Spectrometry</i> , 2015, 26, 762-773.	2.8	11
53	Ligand-Binding Cooperativity Effects in Polymer-Protein Conjugation. <i>Biomacromolecules</i> , 2019, 20, 1118-1131.	5.4	11
54	Engineering osteogenic microenvironments by combination of multilayers from collagen type I and chondroitin sulfate with novel cationic liposomes. <i>Materials Today Bio</i> , 2020, 7, 100071.	5.5	10

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55	Complementary mass spectrometric techniques to achieve complete sequence coverage of recombinant human tropoelastin. <i>Rapid Communications in Mass Spectrometry</i> , 2005, 19, 2989-2993.	1.5	8
56	Direct three-dimensional imaging for morphological analysis of electrospun fibers with laboratory-based Zernike X-ray phase-contrast computed tomography. <i>Materials Science and Engineering C</i> , 2020, 115, 111045.	7.3	8
57	Towards the Therapeutic Use of TSP-1 (Thrombospondin-1)/CD47 Targeting TAX2 Peptide as an Antithrombotic Agent. <i>Arteriosclerosis, Thrombosis, and Vascular Biology</i> , 2020, 41, e1-e17.	2.4	7
58	Effect of metal ions on the physical properties of multilayers from hyaluronan and chitosan, and the adhesion, growth and adipogenic differentiation of multipotent mouse fibroblasts. <i>Soft Matter</i> , 2021, 17, 8394-8410.	2.7	7
59	Cerosomes as skin repairing agent: Mode of action studies with a model stratum corneum layer at liquid/air and liquid/solid interfaces. <i>BBA Advances</i> , 2022, 2, 100039.	1.6	7
60	Cloning, expression, purification, and characterization of a designer protein with repetitive sequences. <i>Protein Expression and Purification</i> , 2008, 59, 203-214.	1.3	6
61	Tissue response to biphasic calcium phosphate covalently modified with either heparin or hyaluronic acid in a mouse subcutaneous implantation model. <i>Journal of Biomedical Materials Research - Part A</i> , 2021, 109, 1353-1365.	4.0	5
62	Fatty Acid Triangulation in Albumins Using a Landmark Spin Label. <i>Israel Journal of Chemistry</i> , 2019, 59, 1059-1074.	2.3	3
63	Role of elastin and elastin-derived peptides in arterial stiffness: from synthesis to potential therapeutic interventions. , 2022, , 299-313.		3
64	Assembly and Properties of Elastic Fibers. , 2016, , 1-30.		1
65	Surface modifications of polylactide nanofiber nonwovens and bulk material by short and ultrashort pulsed laser radiation. , 2019, , .		0
66	Investigation of Laser Processing of Biodegradable Nanofiber Nonwovens with Different Laser Pulse Durations. <i>Journal of Laser Micro Nanoengineering</i> , 0, , .	0.1	0