

Robert C Tuckey

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/4800072/publications.pdf>

Version: 2024-02-01

97
papers

5,933
citations

53660

45
h-index

76769

74
g-index

97
all docs

97
docs citations

97
times ranked

3259
citing authors

#	ARTICLE	IF	CITATIONS
1	<i>In vivo</i> evidence for a novel pathway of vitamin D ³ metabolism initiated by P450 _{scc} and modified by CYP27B1. <i>FASEB Journal</i> , 2012, 26, 3901-3915.	0.2	250
2	Novel activities of CYP11A1 and their potential physiological significance. <i>Journal of Steroid Biochemistry and Molecular Biology</i> , 2015, 151, 25-37.	1.2	235
3	ROR α and ROR γ are expressed in human skin and serve as receptors for endogenously produced noncalcemic 20 α -hydroxy- and 20,23 α -dihydroxyvitamin D. <i>FASEB Journal</i> , 2014, 28, 2775-2789.	0.2	232
4	Cutaneous hypothalamic-pituitary-adrenal axis homolog: regulation by ultraviolet radiation. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 2011, 301, E484-E493.	1.8	221
5	A novel pathway for sequential transformation of 7-dehydrocholesterol and expression of the P450 _{scc} system in mammalian skin. <i>FEBS Journal</i> , 2004, 271, 4178-4188.	0.2	219
6	Detection of novel CYP11A1-derived secosteroids in the human epidermis and serum and pig adrenal gland. <i>Scientific Reports</i> , 2015, 5, 14875.	1.6	201
7	The serum vitamin D metabolome: What we know and what is still to discover. <i>Journal of Steroid Biochemistry and Molecular Biology</i> , 2019, 186, 4-21.	1.2	150
8	The cytochrome P450 _{scc} system opens an alternate pathway of vitamin D ₃ metabolism. <i>FEBS Journal</i> , 2005, 272, 4080-4090.	2.2	142
9	On the role of skin in the regulation of local and systemic steroidogenic activities. <i>Steroids</i> , 2015, 103, 72-88.	0.8	141
10	The role of CYP11A1 in the production of vitamin D metabolites and their role in the regulation of epidermal functions. <i>Journal of Steroid Biochemistry and Molecular Biology</i> , 2014, 144, 28-39.	1.2	136
11	Products of Vitamin D ₃ or 7-Dehydrocholesterol Metabolism by Cytochrome P450 _{scc} Show Anti-Leukemia Effects, Having Low or Absent Calcemic Activity. <i>PLoS ONE</i> , 2010, 5, e9907.	1.1	135
12	20-Hydroxycholecalciferol, Product of Vitamin D ₃ Hydroxylation by P450 _{scc} , Decreases NF- κ B Activity by Increasing I κ B α Levels in Human Keratinocytes. <i>PLoS ONE</i> , 2009, 4, e5988.	1.1	119
13	Endogenously produced nonclassical vitamin D hydroxy-metabolites act as α -biased agonists on VDR and inverse agonists on ROR α and ROR γ . <i>Journal of Steroid Biochemistry and Molecular Biology</i> , 2017, 173, 42-56.	1.2	117
14	Photoprotective Properties of Vitamin D and Lumisterol Hydroxyderivatives. <i>Cell Biochemistry and Biophysics</i> , 2020, 78, 165-180.	0.9	113
15	20-Hydroxyvitamin D ₃ , a Product of Vitamin D ₃ Hydroxylation by Cytochrome P450 _{scc} , Stimulates Keratinocyte Differentiation. <i>Journal of Investigative Dermatology</i> , 2008, 128, 2271-2280.	0.3	111
16	Pathways and products for the metabolism of vitamin D ₃ by cytochrome P450 _{scc} . <i>FEBS Journal</i> , 2008, 275, 2585-2596.	2.2	109
17	20-Hydroxyvitamin D ₂ is a noncalcemic analog of vitamin D with potent antiproliferative and prodifferentiation activities in normal and malignant cells. <i>American Journal of Physiology - Cell Physiology</i> , 2011, 300, C526-C541.	2.1	108
18	Vitamin D signaling and melanoma: role of vitamin D and its receptors in melanoma progression and management. <i>Laboratory Investigation</i> , 2017, 97, 706-724.	1.7	105

#	ARTICLE	IF	CITATIONS
19	Protective effects of novel derivatives of vitamin D3 and lumisterol against UVB-induced damage in human keratinocytes involve activation of Nrf2 and p53 defense mechanisms. <i>Redox Biology</i> , 2019, 24, 101206.	3.9	105
20	Differential and Overlapping Effects of 20,23(OH)2D3 and 1,25(OH)2D3 on Gene Expression in Human Epidermal Keratinocytes: Identification of AhR as an Alternative Receptor for 20,23(OH)2D3. <i>International Journal of Molecular Sciences</i> , 2018, 19, 3072.	1.8	98
21	20,23-dihydroxyvitamin D3, novel P450 _{scc} product, stimulates differentiation and inhibits proliferation and NF- κ B activity in human keratinocytes. <i>Journal of Cellular Physiology</i> , 2010, 223, 36-48.	2.0	96
22	Extra-adrenal glucocorticoid biosynthesis: implications for autoimmune and inflammatory disorders. <i>Genes and Immunity</i> , 2020, 21, 150-168.	2.2	93
23	In vivo production of novel vitamin D2 hydroxy-derivatives by human placentas, epidermal keratinocytes, Caco-2 colon cells and the adrenal gland. <i>Molecular and Cellular Endocrinology</i> , 2014, 383, 181-192.	1.6	88
24	Sequential Metabolism of 7-Dehydrocholesterol to Steroidal 5,7-Dienes in Adrenal Glands and Its Biological Implication in the Skin. <i>PLoS ONE</i> , 2009, 4, e4309.	1.1	84
25	Production of 22-Hydroxy Metabolites of Vitamin D3 by Cytochrome P450 _{scc} (CYP11A1) and Analysis of Their Biological Activities on Skin Cells. <i>Drug Metabolism and Disposition</i> , 2011, 39, 1577-1588.	1.7	80
26	Cytochromes P450 and Skin Cancer: Role of Local Endocrine Pathways. <i>Anti-Cancer Agents in Medicinal Chemistry</i> , 2014, 14, 77-96.	0.9	78
27	20 <i>S</i> -Hydroxyvitamin D ₃ , Noncalcemic Product of CYP11A1 Action on Vitamin D ₃ , Exhibits Potent Antifibrogenic Activity in Vivo. <i>Journal of Clinical Endocrinology and Metabolism</i> , 2013, 98, E298-E303.	1.8	76
28	On the role of classical and novel forms of vitamin D in melanoma progression and management. <i>Journal of Steroid Biochemistry and Molecular Biology</i> , 2018, 177, 159-170.	1.2	75
29	Cytochrome P450 _{scc} -dependent metabolism of 7-dehydrocholesterol in placenta and epidermal keratinocytes. <i>International Journal of Biochemistry and Cell Biology</i> , 2012, 44, 2003-2018.	1.2	74
30	Optimized 25-hydroxyvitamin D analysis using liquid-liquid extraction with 2D separation with LC/MS/MS detection, provides superior precision compared to conventional assays. <i>Metabolomics</i> , 2013, 9, 1031-1040.	1.4	74
31	Novel non-calcemic secosteroids that are produced by human epidermal keratinocytes protect against solar radiation. <i>Journal of Steroid Biochemistry and Molecular Biology</i> , 2015, 148, 52-63.	1.2	68
32	Correlation between secosteroid-induced vitamin D receptor activity in melanoma cells and computer-modeled receptor binding strength. <i>Molecular and Cellular Endocrinology</i> , 2012, 361, 143-152.	1.6	65
33	Cutaneous glucocorticosteroidogenesis: securing local homeostasis and the skin integrity. <i>Experimental Dermatology</i> , 2014, 23, 369-374.	1.4	65
34	Characterization of a new pathway that activates lumisterol in vivo to biologically active hydroxylumisterols. <i>Scientific Reports</i> , 2017, 7, 11434.	1.6	64
35	Novel vitamin D hydroxyderivatives inhibit melanoma growth and show differential effects on normal melanocytes. <i>Anticancer Research</i> , 2012, 32, 3733-42.	0.5	63
36	Chemical synthesis of 20 <i>S</i> -hydroxyvitamin D3, which shows antiproliferative activity. <i>Steroids</i> , 2010, 75, 926-935.	0.8	61

#	ARTICLE	IF	CITATIONS
37	20-hydroxyvitamin D ₃ inhibits proliferation of cancer cells with high efficacy while being non-toxic. <i>Anticancer Research</i> , 2012, 32, 739-46.	0.5	61
38	Vitamin D and lumisterol derivatives can act on liver X receptors (LXRs). <i>Scientific Reports</i> , 2021, 11, 8002.	1.6	60
39	Transfer of Cholesterol between Phospholipid Vesicles Mediated by the Steroidogenic Acute Regulatory Protein (StAR). <i>Journal of Biological Chemistry</i> , 2002, 277, 47123-47128.	1.6	56
40	Novel vitamin D photoproducts and their precursors in the skin. <i>Dermato-Endocrinology</i> , 2013, 5, 7-19.	1.9	56
41	CYP11A1 in skin: An alternative route to photoprotection by vitamin D compounds. <i>Journal of Steroid Biochemistry and Molecular Biology</i> , 2015, 148, 72-78.	1.2	55
42	Classical and non-classical metabolic transformation of vitamin D in dermal fibroblasts. <i>Experimental Dermatology</i> , 2016, 25, 231-232.	1.4	54
43	Vitamin D Analogs 17,20S(OH) ₂ D and 17,20R(OH) ₂ D Are Noncalcemic and Exhibit Antifibrotic Activity. <i>Journal of Investigative Dermatology</i> , 2011, 131, 1167-1169.	0.3	49
44	Kinetics of vitamin D ₃ metabolism by cytochrome P450 _{11A1} (CYP11A1) in phospholipid vesicles and cyclodextrin. <i>International Journal of Biochemistry and Cell Biology</i> , 2008, 40, 2619-2626.	1.2	47
45	Vitamin D derivatives enhance cytotoxic effects of H ₂ O ₂ or cisplatin on human keratinocytes. <i>Steroids</i> , 2016, 110, 49-61.	0.8	47
46	Metabolism of 1 α -hydroxyvitamin D ₃ by cytochrome P450 _{11A1} to biologically active 1 α ,20-dihydroxyvitamin D ₃ . <i>Journal of Steroid Biochemistry and Molecular Biology</i> , 2008, 112, 213-219.	1.2	46
47	Novel vitamin D analogs as potential therapeutics: metabolism, toxicity profiling, and antiproliferative activity. <i>Anticancer Research</i> , 2014, 34, 2153-63.	0.5	44
48	Rat CYP24A1 acts on 20-hydroxyvitamin D ₃ producing hydroxylated products with increased biological activity. <i>Biochemical Pharmacology</i> , 2012, 84, 1696-1704.	2.0	40
49	Noncalcemic 20-hydroxyvitamin D ₃ inhibits human melanoma growth in <i>in vitro</i> and <i>in vivo</i> models. <i>Oncotarget</i> , 2017, 8, 9823-9834.	0.8	40
50	Side-chain specificities of human and bovine cytochromes P-450 _{11A1} . <i>FEBS Journal</i> , 1993, 217, 209-215.	0.2	39
51	Hydroxylation of CYP11A1-Derived Products of Vitamin D ₃ Metabolism by Human and Mouse CYP27B1. <i>Drug Metabolism and Disposition</i> , 2013, 41, 1112-1124.	1.7	39
52	Kinetic analysis of human CYP24A1 metabolism of vitamin D via the C24 α -oxidation pathway. <i>FEBS Journal</i> , 2014, 281, 3280-3296.	2.2	39
53	Antitumor Effects of Vitamin D Analogs on Hamster and Mouse Melanoma Cell Lines in Relation to Melanin Pigmentation. <i>International Journal of Molecular Sciences</i> , 2015, 16, 6645-6667.	1.8	39
54	Purified Mouse CYP27B1 Can Hydroxylate 20,23-Dihydroxyvitamin D ₃ , Producing 1 α ,20,23-Trihydroxyvitamin D ₃ , Which Has Altered Biological Activity. <i>Drug Metabolism and Disposition</i> , 2010, 38, 1553-1559.	1.7	38

#	ARTICLE	IF	CITATIONS
55	Investigation of 20S-hydroxyvitamin D3 analogs and their 1 $\hat{\pm}$ -OH derivatives as potent vitamin D receptor agonists with anti-inflammatory activities. <i>Scientific Reports</i> , 2018, 8, 1478.	1.6	38
56	The Role of Classical and Novel Forms of Vitamin D in the Pathogenesis and Progression of Nonmelanoma Skin Cancers. <i>Advances in Experimental Medicine and Biology</i> , 2020, 1268, 257-283.	0.8	38
57	Lumisterol is metabolized by CYP11A1: Discovery of a new pathway. <i>International Journal of Biochemistry and Cell Biology</i> , 2014, 55, 24-34.	1.2	37
58	CYP24A1 Expression Inversely Correlates with Melanoma Progression: Clinic-Pathological Studies. <i>International Journal of Molecular Sciences</i> , 2014, 15, 19000-19017.	1.8	35
59	Pregnenolone synthesis from cholesterol and hydroxycholesterols by mitochondria from ovaries following the stimulation of immature rats with pregnant mare's serum gonadotropin and human choriongonadotropin. <i>FEBS Journal</i> , 1989, 186, 255-259.	0.2	33
60	The concentration of adrenodoxin reductase limits cytochrome P450 _{scc} activity in the human placenta. <i>FEBS Journal</i> , 1999, 263, 319-325.	0.2	32
61	CYP11A1-derived vitamin D3 products protect against UVB-induced inflammation and promote keratinocytes differentiation. <i>Free Radical Biology and Medicine</i> , 2020, 155, 87-98.	1.3	31
62	Metabolic activation of tachysterol ₃ to biologically active hydroxyderivatives that act on $\langle \text{VDR} \rangle$, $\langle \text{AhR} \rangle$, $\langle \text{LXR} \rangle$ and $\langle \text{PPAR}\hat{1}^3 \rangle$ receptors. <i>FASEB Journal</i> , 2022, 36, .	0.2	29
63	CYP27A1 acts on the pre-vitamin D3 photoproduct, lumisterol, producing biologically active hydroxy-metabolites. <i>Journal of Steroid Biochemistry and Molecular Biology</i> , 2018, 181, 1-10.	1.2	28
64	Simultaneous measurement of 13 circulating vitamin D3 and D2 mono and dihydroxy metabolites using liquid chromatography mass spectrometry. <i>Clinical Chemistry and Laboratory Medicine</i> , 2021, 59, 1642-1652.	1.4	27
65	1 $\hat{\pm}$,20S-Dihydroxyvitamin D3 Interacts with Vitamin D Receptor: Crystal Structure and Route of Chemical Synthesis. <i>Scientific Reports</i> , 2017, 7, 10193.	1.6	26
66	Bioactive forms of vitamin D selectively stimulate the skin analog of the hypothalamus-pituitary-adrenal axis in human epidermal keratinocytes. <i>Molecular and Cellular Endocrinology</i> , 2016, 437, 312-322.	1.6	25
67	Electron Transfer to Cytochrome P-450 _{scc} Limits Cholesterol-Side-Chain-Cleavage Activity in the Human Placenta. <i>FEBS Journal</i> , 1997, 244, 835-839.	0.2	24
68	Hydroxylumisterols, Photoproducts of Pre-Vitamin D3, Protect Human Keratinocytes against UVB-Induced Damage. <i>International Journal of Molecular Sciences</i> , 2020, 21, 9374.	1.8	23
69	Purification and analysis of phospholipids in the inner mitochondrial membrane fraction of bovine corpus luteum, and properties of cytochrome P-450 _{scc} incorporated into vesicles prepared from these phospholipids. <i>FEBS Journal</i> , 1985, 148, 379-384.	0.2	22
70	Chemical Synthesis and Biological Activities of 20 <i>S</i> ,24 <i>S</i> / <i>R</i> -Dihydroxyvitamin D3 Epimers and Their 1 $\hat{\pm}$ -Hydroxyl Derivatives. <i>Journal of Medicinal Chemistry</i> , 2015, 58, 7881-7887.	2.9	22
71	Detection of 7-Dehydrocholesterol and Vitamin D3 Derivatives in Honey. <i>Molecules</i> , 2020, 25, 2583.	1.7	21
72	Expression of human CYP27B1 in <i>Escherichia coli</i> and characterization in phospholipid vesicles. <i>FEBS Journal</i> , 2012, 279, 3749-3761.	2.2	19

#	ARTICLE	IF	CITATIONS
73	A Proposed Molecular Mechanism of High-Dose Vitamin D3 Supplementation in Prevention and Treatment of Preeclampsia. <i>International Journal of Molecular Sciences</i> , 2015, 16, 13043-13064.	1.8	19
74	Synthesis and Biological Evaluation of Vitamin D3 Metabolite 20 <i>S</i> ,23 <i>S</i> -Dihydroxyvitamin D3 and Its 23 <i>R</i> Epimer. <i>Journal of Medicinal Chemistry</i> , 2016, 59, 5102-5108.	2.9	19
75	Hydroxylation of 20-hydroxyvitamin D3 by human CYP3A4. <i>Journal of Steroid Biochemistry and Molecular Biology</i> , 2016, 159, 131-141.	1.2	19
76	Oxidized adrenodoxin acts as a competitive inhibitor of cytochrome P450 _{scc} in mitochondria from the human placenta. <i>FEBS Journal</i> , 2001, 268, 2338-2343.	0.2	18
77	20 <i>S</i> -Hydroxyvitamin D3, a Secosteroid Produced in Humans, Is Anti-Inflammatory and Inhibits Murine Autoimmune Arthritis. <i>Frontiers in Immunology</i> , 2021, 12, 678487.	2.2	18
78	Molecular and structural basis of interactions of vitamin D3 hydroxyderivatives with aryl hydrocarbon receptor (AhR): An integrated experimental and computational study. <i>International Journal of Biological Macromolecules</i> , 2022, 209, 1111-1123.	3.6	17
79	Metabolism of 20-hydroxyvitamin D3 and 20,23-dihydroxyvitamin D3 by rat and human CYP24A1. <i>Journal of Steroid Biochemistry and Molecular Biology</i> , 2015, 149, 153-165.	1.2	16
80	Antifibrogenic Activities of CYP11A1-derived Vitamin D3-hydroxyderivatives Are Dependent on ROR β . <i>Endocrinology</i> , 2021, 162, .	1.4	16
81	CYP11A1-derived vitamin D hydroxyderivatives as candidates for therapy of basal and squamous cell carcinomas. <i>International Journal of Oncology</i> , 2022, 61, .	1.4	16
82	Placental cytochrome P450 _{scc} (CYP11A1): comparison of catalytic properties between conditions of limiting and saturating adrenodoxin reductase. <i>Journal of Steroid Biochemistry and Molecular Biology</i> , 2002, 81, 153-158.	1.2	15
83	Catalytic properties of 25-hydroxyvitamin D3 3-epimerase in rat and human liver microsomes. <i>Archives of Biochemistry and Biophysics</i> , 2019, 666, 16-21.	1.4	15
84	Knocking out the Vitamin D Receptor Enhances Malignancy and Decreases Responsiveness to Vitamin D3 Hydroxyderivatives in Human Melanoma Cells. <i>Cancers</i> , 2021, 13, 3111.	1.7	14
85	Evidence for Involvement of Nonclassical Pathways in the Protection From UV -Induced DNA Damage by Vitamin D-Related Compounds. <i>JBMR Plus</i> , 2021, 5, e10555.	1.3	13
86	Metabolism of 20-hydroxyvitamin D3 by mouse liver microsomes. <i>Journal of Steroid Biochemistry and Molecular Biology</i> , 2014, 144, 286-293.	1.2	12
87	Noncalcemic Vitamin D Hydroxyderivatives Inhibit Human Oral Squamous Cell Carcinoma and Down-regulate Hedgehog and WNT/β -Catenin Pathways. <i>Anticancer Research</i> , 2020, 40, 2467-2474.	0.5	12
88	Vitamin D as an adjuvant in melanoma therapy. <i>Melanoma Management</i> , 2015, 2, 1-4.	0.1	11
89	Association among Vitamin D, Retinoic Acid-Related Orphan Receptors, and Vitamin D Hydroxyderivatives in Ovarian Cancer. <i>Nutrients</i> , 2020, 12, 3541.	1.7	10
90	Chemical synthesis, biological activities and action on nuclear receptors of 20 <i>S</i> (OH)D3, 20 <i>S</i> ,25(OH)2D3, 20 <i>S</i> ,23 <i>S</i> (OH)2D3 and 20 <i>S</i> ,23 <i>R</i> (OH)2D3. <i>Bioorganic Chemistry</i> , 2022, 121, 105660.	2.0	10

#	ARTICLE	IF	CITATIONS
91	1,25-Dihydroxyvitamin D3 and 20-Hydroxyvitamin D3 Upregulate LAIR-1 and Attenuate Collagen Induced Arthritis. <i>International Journal of Molecular Sciences</i> , 2021, 22, 13342.	1.8	9
92	Ferredoxin reductase levels in the ovaries of pigs and superovulated rats during follicular cell growth and luteinization. <i>FEBS Journal</i> , 1986, 161, 629-633.	0.2	8
93	Properties of purified CYP2R1 in a reconstituted membrane environment and its 25-hydroxylation of 20-hydroxyvitamin D3. <i>Journal of Steroid Biochemistry and Molecular Biology</i> , 2018, 177, 59-69.	1.2	8
94	Selective ability of rat 7-Dehydrocholesterol reductase (DHCR7) to act on some 7-Dehydrocholesterol metabolites but not on lumisterol metabolites. <i>Journal of Steroid Biochemistry and Molecular Biology</i> , 2021, 212, 105929.	1.2	8
95	Design, Synthesis and Biological Activities of Novel Gemini 20S-Hydroxyvitamin D3 Analogs. <i>Anticancer Research</i> , 2016, 36, 877-86.	0.5	7
96	Modulation by 17,20S(OH)2pD of Fibrosis-Related Mediators in Dermal Fibroblast Lines from Healthy Donors and from Patients with Systemic Sclerosis. <i>International Journal of Molecular Sciences</i> , 2022, 23, 367.	1.8	7
97	Membrane-Mediated Protein-Protein Interactions of Cholesterol Side-Chain Cleavage Cytochrome...P450 with its Associated Electron Transport Proteins. <i>ChemPlusChem</i> , 2016, 81, 995-1002.	1.3	6