# Robert C Tuckey

#### List of Publications by Citations

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92 4,397 41 65 g-index

97 5,121 4.6 sext. citations ext. citations avg, IF 5.45

L-index

#	Paper	IF	Citations
92	In vivo evidence for a novel pathway of vitamin D[metabolism initiated by P450scc and modified by CYP27B1. <i>FASEB Journal</i> , <b>2012</b> , 26, 3901-15	0.9	199
91	Cutaneous hypothalamic-pituitary-adrenal axis homolog: regulation by ultraviolet radiation. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , <b>2011</b> , 301, E484-93	6	188
90	A novel pathway for sequential transformation of 7-dehydrocholesterol and expression of the P450scc system in mammalian skin. <i>FEBS Journal</i> , <b>2004</b> , 271, 4178-88		187
89	Novel activities of CYP11A1 and their potential physiological significance. <i>Journal of Steroid Biochemistry and Molecular Biology</i> , <b>2015</b> , 151, 25-37	5.1	181
88	ROR and ROR are expressed in human skin and serve as receptors for endogenously produced noncalcemic 20-hydroxy- and 20,23-dihydroxyvitamin D. <i>FASEB Journal</i> , <b>2014</b> , 28, 2775-89	0.9	170
87	Detection of novel CYP11A1-derived secosteroids in the human epidermis and serum and pig adrenal gland. <i>Scientific Reports</i> , <b>2015</b> , 5, 14875	4.9	154
86	The cytochrome P450scc system opens an alternate pathway of vitamin D3 metabolism. <i>FEBS Journal</i> , <b>2005</b> , 272, 4080-90	5.7	119
85	Products of vitamin D3 or 7-dehydrocholesterol metabolism by cytochrome P450scc show anti-leukemia effects, having low or absent calcemic activity. <i>PLoS ONE</i> , <b>2010</b> , 5, e9907	3.7	110
84	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> , <b>2014</b> , 144 Pt A, 28-39	5.1	108
83	On the role of skin in the regulation of local and systemic steroidogenic activities. <i>Steroids</i> , <b>2015</b> , 103, 72-88	2.8	107
82	20-Hydroxycholecalciferol, product of vitamin D3 hydroxylation by P450scc, decreases NF-kappaB activity by increasing IkappaB alpha levels in human keratinocytes. <i>PLoS ONE</i> , <b>2009</b> , 4, e5988	3.7	98
81	20-Hydroxyvitamin D3, a product of vitamin D3 hydroxylation by cytochrome P450scc, stimulates keratinocyte differentiation. <i>Journal of Investigative Dermatology</i> , <b>2008</b> , 128, 2271-80	4.3	97
80	Pathways and products for the metabolism of vitamin D3 by cytochrome P450scc. <i>FEBS Journal</i> , <b>2008</b> , 275, 2585-96	5.7	92
79	20-Hydroxyvitamin D2 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> , <b>2011</b> , 300, C526-41	5.4	90
78	Endogenously produced nonclassical vitamin D hydroxy-metabolites act as "biased" agonists on VDR and inverse agonists on ROR (Bod) ROR (Bod) (Bod) ROR (Bod)	5.1	84
77	20,23-dihydroxyvitamin D3, novel P450scc product, stimulates differentiation and inhibits proliferation and NF-kappaB activity in human keratinocytes. <i>Journal of Cellular Physiology</i> , <b>2010</b> , 223, 36-48	7	77
76	Vitamin D signaling and melanoma: role of vitamin D and its receptors in melanoma progression and management. <i>Laboratory Investigation</i> , <b>2017</b> , 97, 706-724	5.9	76

## (2010-2019)

75	The serum vitamin D metabolome: What we know and what is still to discover. <i>Journal of Steroid Biochemistry and Molecular Biology</i> , <b>2019</b> , 186, 4-21	5.1	75
74	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> , <b>2014</b> , 383, 181-92	4.4	73
73	Sequential metabolism of 7-dehydrocholesterol to steroidal 5,7-dienes in adrenal glands and its biological implication in the skin. <i>PLoS ONE</i> , <b>2009</b> , 4, e4309	3.7	71
72	Cytochromes p450 and skin cancer: role of local endocrine pathways. <i>Anti-Cancer Agents in Medicinal Chemistry</i> , <b>2014</b> , 14, 77-96	2.2	70
71	Production of 22-hydroxy metabolites of vitamin d3 by cytochrome p450scc (CYP11A1) and analysis of their biological activities on skin cells. <i>Drug Metabolism and Disposition</i> , <b>2011</b> , 39, 1577-88	4	65
70	Protective effects of novel derivatives of vitamin D and lumisterol against UVB-induced damage in human keratinocytes involve activation of Nrf2 and p53 defense mechanisms. <i>Redox Biology</i> , <b>2019</b> , 24, 101206	11.3	62
69	Optimized 25-hydroxyvitamin D analysis using liquid I quid extraction with 2D separation with LC/MS/MS detection, provides superior precision compared to conventional assays. <i>Metabolomics</i> , <b>2013</b> , 9, 1031-1040	4.7	62
68	20S-hydroxyvitamin D3, noncalcemic product of CYP11A1 action on vitamin D3, exhibits potent antifibrogenic activity in vivo. <i>Journal of Clinical Endocrinology and Metabolism</i> , <b>2013</b> , 98, E298-303	5.6	62
67	Cytochrome P450scc-dependent metabolism of 7-dehydrocholesterol in placenta and epidermal keratinocytes. <i>International Journal of Biochemistry and Cell Biology</i> , <b>2012</b> , 44, 2003-18	5.6	61
66	Novel vitamin D hydroxyderivatives inhibit melanoma growth and show differential effects on normal melanocytes. <i>Anticancer Research</i> , <b>2012</b> , 32, 3733-42	2.3	61
65	20-hydroxyvitamin Dûnhibits proliferation of cancer cells with high efficacy while being non-toxic. <i>Anticancer Research</i> , <b>2012</b> , 32, 739-46	2.3	57
64	Cutaneous glucocorticosteroidogenesis: securing local homeostasis and the skin integrity. <i>Experimental Dermatology</i> , <b>2014</b> , 23, 369-374	4	56
63	Differential and Overlapping Effects of 20,23(OH)D3 and 1,25(OH)D3 on Gene Expression in Human Epidermal Keratinocytes: Identification of AhR as an Alternative Receptor for 20,23(OH)D3. <i>International Journal of Molecular Sciences</i> , <b>2018</b> , 19,	6.3	56
62	Novel non-calcemic secosteroids that are produced by human epidermal keratinocytes protect against solar radiation. <i>Journal of Steroid Biochemistry and Molecular Biology</i> , <b>2015</b> , 148, 52-63	5.1	55
61	On the role of classical and novel forms of vitamin D in melanoma progression and management. Journal of Steroid Biochemistry and Molecular Biology, <b>2018</b> , 177, 159-170	5.1	54
60	Photoprotective Properties of Vitamin D and Lumisterol Hydroxyderivatives. <i>Cell Biochemistry and Biophysics</i> , <b>2020</b> , 78, 165-180	3.2	53
59	Correlation between secosteroid-induced vitamin D receptor activity in melanoma cells and computer-modeled receptor binding strength. <i>Molecular and Cellular Endocrinology</i> , <b>2012</b> , 361, 143-52	4.4	53
58	Chemical synthesis of 20S-hydroxyvitamin D3, which shows antiproliferative activity. <i>Steroids</i> , <b>2010</b> , 75, 926-35	2.8	51

57	Transfer of cholesterol between phospholipid vesicles mediated by the steroidogenic acute regulatory protein (StAR). <i>Journal of Biological Chemistry</i> , <b>2002</b> , 277, 47123-8	5.4	51
56	Characterization of a new pathway that activates lumisterol in vivo to biologically active hydroxylumisterols. <i>Scientific Reports</i> , <b>2017</b> , 7, 11434	4.9	50
55	Extra-adrenal glucocorticoid biosynthesis: implications for autoimmune and inflammatory disorders. <i>Genes and Immunity</i> , <b>2020</b> , 21, 150-168	4.4	44
54	Novel vitamin D photoproducts and their precursors in the skin. <i>Dermato-Endocrinology</i> , <b>2013</b> , 5, 7-19		42
53	Metabolism of 1alpha-hydroxyvitamin D3 by cytochrome P450scc to biologically active 1alpha,20-dihydroxyvitamin D3. <i>Journal of Steroid Biochemistry and Molecular Biology</i> , <b>2008</b> , 112, 213-9	5.1	41
52	Novel vitamin D analogs as potential therapeutics: metabolism, toxicity profiling, and antiproliferative activity. <i>Anticancer Research</i> , <b>2014</b> , 34, 2153-63	2.3	41
51	Classical and non-classical metabolic transformation of vitamin D in dermal fibroblasts. <i>Experimental Dermatology</i> , <b>2016</b> , 25, 231-2	4	40
50	CYP11A1 in skin: an alternative route to photoprotection by vitamin D compounds. <i>Journal of Steroid Biochemistry and Molecular Biology</i> , <b>2015</b> , 148, 72-8	5.1	39
49	Vitamin D analogs 17,20S(OH)2pD and 17,20R(OH)2pD are noncalcemic and exhibit antifibrotic activity. <i>Journal of Investigative Dermatology</i> , <b>2011</b> , 131, 1167-9	4.3	39
48	Kinetics of vitamin D3 metabolism by cytochrome P450scc (CYP11A1) in phospholipid vesicles and cyclodextrin. <i>International Journal of Biochemistry and Cell Biology</i> , <b>2008</b> , 40, 2619-26	5.6	37
47	Rat CYP24A1 acts on 20-hydroxyvitamin D(3) producing hydroxylated products with increased biological activity. <i>Biochemical Pharmacology</i> , <b>2012</b> , 84, 1696-704	6	36
46	Side-chain specificities of human and bovine cytochromes P-450scc. <i>FEBS Journal</i> , <b>1993</b> , 217, 209-15		33
45	CYP24A1 expression inversely correlates with melanoma progression: clinic-pathological studies. <i>International Journal of Molecular Sciences</i> , <b>2014</b> , 15, 19000-17	6.3	31
44	Hydroxylation of CYP11A1-derived products of vitamin D3 metabolism by human and mouse CYP27B1. <i>Drug Metabolism and Disposition</i> , <b>2013</b> , 41, 1112-24	4	31
43	Purified mouse CYP27B1 can hydroxylate 20,23-dihydroxyvitamin D3, producing 1alpha,20,23-trihydroxyvitamin D3, which has altered biological activity. <i>Drug Metabolism and Disposition</i> , <b>2010</b> , 38, 1553-9	4	31
42	The concentration of adrenodoxin reductase limits cytochrome p450scc activity in the human placenta. <i>FEBS Journal</i> , <b>1999</b> , 263, 319-25		30
41	Noncalcemic 20-hydroxyvitamin D3 inhibits human melanoma growth in in vitro and in vivo models. <i>Oncotarget</i> , <b>2017</b> , 8, 9823-9834	3.3	30
40	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> , <b>2015</b> , 16, 6645-67	6.3	29

## (2015-2016)

39	Vitamin D derivatives enhance cytotoxic effects of H2O2 or cisplatin on human keratinocytes. <i>Steroids</i> , <b>2016</b> , 110, 49-61	2.8	29
38	Kinetic analysis of human CYP24A1 metabolism of vitamin D via the C24-oxidation pathway. <i>FEBS Journal</i> , <b>2014</b> , 281, 3280-96	5.7	27
37	Lumisterol is metabolized by CYP11A1: discovery of a new pathway. <i>International Journal of Biochemistry and Cell Biology</i> , <b>2014</b> , 55, 24-34	5.6	26
36	Pregnenolone synthesis from cholesterol and hydroxycholesterols by mitochondria from ovaries following the stimulation of immature rats with pregnant marely serum gonadotropin and human choriogonadotropin. <i>FEBS Journal</i> , <b>1989</b> , 186, 255-9		26
35	Investigation of 20S-hydroxyvitamin D analogs and their 1EDH derivatives as potent vitamin D receptor agonists with anti-inflammatory activities. <i>Scientific Reports</i> , <b>2018</b> , 8, 1478	4.9	25
34	Electron transfer to cytochrome P-450scc limits cholesterol-side-chain-cleavage activity in the human placenta. <i>FEBS Journal</i> , <b>1997</b> , 244, 835-9		22
33	Purification and analysis of phospholipids in the inner mitochondrial membrane fraction of bovine corpus luteum, and properties of cytochrome P-450scc incorporated into vesicles prepared from these phospholipids. <i>FEBS Journal</i> , <b>1985</b> , 148, 379-84		22
32	1⊉0S-Dihydroxyvitamin D Interacts with Vitamin D Receptor: Crystal Structure and Route of Chemical Synthesis. <i>Scientific Reports</i> , <b>2017</b> , 7, 10193	4.9	18
31	Chemical Synthesis and Biological Activities of 20S,24S/R-Dihydroxyvitamin D3 Epimers and Their 1\text{\text{Hydroxyl Derivatives}}. <i>Journal of Medicinal Chemistry</i> , <b>2015</b> , 58, 7881-7	8.3	18
30	Hydroxylation of 20-hydroxyvitamin D3 by human CYP3A4. <i>Journal of Steroid Biochemistry and Molecular Biology</i> , <b>2016</b> , 159, 131-41	5.1	18
29	Oxidized adrenodoxin acts as a competitive inhibitor of cytochrome P450scc in mitochondria from the human placenta. <i>FEBS Journal</i> , <b>2001</b> , 268, 2338-43		16
28	CYP27A1 acts on the pre-vitamin D3 photoproduct, lumisterol, producing biologically active hydroxy-metabolites. <i>Journal of Steroid Biochemistry and Molecular Biology</i> , <b>2018</b> , 181, 1-10	5.1	15
27	A Proposed Molecular Mechanism of High-Dose Vitamin D3 Supplementation in Prevention and Treatment of Preeclampsia. <i>International Journal of Molecular Sciences</i> , <b>2015</b> , 16, 13043-64	6.3	15
26	Placental cytochrome P450scc (CYP11A1): comparison of catalytic properties between conditions of limiting and saturating adrenodoxin reductase. <i>Journal of Steroid Biochemistry and Molecular Biology</i> , <b>2002</b> , 81, 153-8	5.1	15
25	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> , <b>2020</b> , 1268, 257-283	3.6	15
24	CYP11A1-derived vitamin D products protect against UVB-induced inflammation and promote keratinocytes differentiation. <i>Free Radical Biology and Medicine</i> , <b>2020</b> , 155, 87-98	7.8	15
23	Vitamin D and lumisterol derivatives can act on liver X receptors (LXRs). <i>Scientific Reports</i> , <b>2021</b> , 11, 8002	<b>2</b> 4.9	15
22	Metabolism of 20-hydroxyvitamin D3 and 20,23-dihydroxyvitamin D3 by rat and human CYP24A1.  Journal of Steroid Biochemistry and Molecular Biology, 2015, 149, 153-65	5.1	14

21	Synthesis and Biological Evaluation of Vitamin D3 Metabolite 20S,23S-Dihydroxyvitamin D3 and Its 23R Epimer. <i>Journal of Medicinal Chemistry</i> , <b>2016</b> , 59, 5102-8	8.3	14
20	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> , <b>2016</b> , 437, 312-322	4.4	12
19	Metabolism of 20-hydroxyvitamin D3 by mouse liver microsomes. <i>Journal of Steroid Biochemistry and Molecular Biology</i> , <b>2014</b> , 144 Pt B, 286-93	5.1	12
18	Expression of human CYP27B1 in Escherichia coli and characterization in phospholipid vesicles. <i>FEBS Journal</i> , <b>2012</b> , 279, 3749-3761	5.7	11
17	Catalytic properties of 25-hydroxyvitamin D3 3-epimerase in rat and human liver microsomes. <i>Archives of Biochemistry and Biophysics</i> , <b>2019</b> , 666, 16-21	4.1	10
16	Hydroxylumisterols, Photoproducts of Pre-Vitamin D3, Protect Human Keratinocytes against UVB-Induced Damage. <i>International Journal of Molecular Sciences</i> , <b>2020</b> , 21,	6.3	9
15	Vitamin D as an adjuvant in melanoma therapy. <i>Melanoma Management</i> , <b>2015</b> , 2, 1-4	2.1	8
14	Detection of 7-Dehydrocholesterol and Vitamin D3 Derivatives in Honey. <i>Molecules</i> , <b>2020</b> , 25,	4.8	7
13	Ferredoxin reductase levels in the ovaries of pigs and superovulated rats during follicular cell growth and luteinization. <i>FEBS Journal</i> , <b>1986</b> , 161, 629-33		7
12	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> , <b>2021</b> , 59, 1642-1652	5.9	7
11	Noncalcemic Vitamin D Hydroxyderivatives Inhibit Human Oral Squamous Cell Carcinoma and Down-regulate Hedgehog and WNT/ECatenin Pathways. <i>Anticancer Research</i> , <b>2020</b> , 40, 2467-2474	2.3	6
10	Design, Synthesis and Biological Activities of Novel Gemini 20S-Hydroxyvitamin D3 Analogs. <i>Anticancer Research</i> , <b>2016</b> , 36, 877-86	2.3	6
9	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> , <b>2018</b> , 177, 59-69	5.1	6
8	Membrane-Mediated Protein-Protein Interactions of Cholesterol Side-Chain Cleavage Cytochrome P450 with its Associated Electron Transport Proteins. <i>ChemPlusChem</i> , <b>2016</b> , 81, 995-1002	2.8	5
7	Knocking out the Vitamin D Receptor Enhances Malignancy and Decreases Responsiveness to Vitamin D3 Hydroxyderivatives in Human Melanoma Cells. <i>Cancers</i> , <b>2021</b> , 13,	6.6	4
6	Association among Vitamin D, Retinoic Acid-Related Orphan Receptors, and Vitamin D Hydroxyderivatives in Ovarian Cancer. <i>Nutrients</i> , <b>2020</b> , 12,	6.7	3
5	20-Hydroxyvitamin D3, a Secosteroid Produced in Humans, Is Anti-Inflammatory and Inhibits Murine Autoimmune Arthritis. <i>Frontiers in Immunology</i> , <b>2021</b> , 12, 678487	8.4	3
4	Antifibrogenic Activities of CYP11A1-derived Vitamin D3-hydroxyderivatives Are Dependent on ROR[]Endocrinology, <b>2021</b> , 162,	4.8	3

#### LIST OF PUBLICATIONS

3	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> , <b>2021</b> , 212, 105929	5.1	1
2	Chemical synthesis, biological activities and action on nuclear receptors of 20S(OH)D, 20S,25(OH)D, 20S,23S(OH)D and 20S,23R(OH)D <i>Bioorganic Chemistry</i> , <b>2022</b> , 121, 105660	5.1	O
1	Evidence for Involvement of Nonclassical Pathways in the Protection From UV-Induced DNA Damage by Vitamin D-Related Compounds <i>JBMR Plus</i> , <b>2021</b> , 5, e10555	3.9	O