

# Robert C Tuckey

## List of Publications by Year in descending order

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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	Chemical synthesis, biological activities and action on nuclear receptors of 20S(OH)D <sub>3</sub> , 20S,25(OH)2D <sub>3</sub> , 20S,23S(OH)2D <sub>3</sub> and 20S,23R(OH)2D <sub>3</sub> . <i>Bioorganic Chemistry</i> , 2022, 121, 105660.	2.0	10
2	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
3	Molecular and structural basis of interactions of vitamin D <sub>3</sub> 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
4	Metabolic activation of tachysterol <sub>3</sub> to biologically active hydroxyderivatives that act on VDR, AhR, LXR <sub>s</sub> and PPAR <sub>γ</sub> receptors. <i>FASEB Journal</i> , 2022, 36, .	0.2	29
5	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
6	Antifibrogenic Activities of CYP11A1-derived Vitamin D <sub>3</sub> -hydroxyderivatives Are Dependent on ROR <sub>γ</sub> . <i>Endocrinology</i> , 2021, 162, .	1.4	16
7	Vitamin D and lumisterol derivatives can act on liver X receptors (LXRs). <i>Scientific Reports</i> , 2021, 11, 8002.	1.6	60
8	Simultaneous measurement of 13 circulating vitamin D <sub>3</sub> and D <sub>2</sub> mono and dihydroxy metabolites using liquid chromatography mass spectrometry. <i>Clinical Chemistry and Laboratory Medicine</i> , 2021, 59, 1642-1652.	1.4	27
9	Knocking out the Vitamin D Receptor Enhances Malignancy and Decreases Responsiveness to Vitamin D <sub>3</sub> Hydroxyderivatives in Human Melanoma Cells. <i>Cancers</i> , 2021, 13, 3111.	1.7	14
10	20S-Hydroxyvitamin D <sub>3</sub> , a Secosteroid Produced in Humans, Is Anti-Inflammatory and Inhibits Murine Autoimmune Arthritis. <i>Frontiers in Immunology</i> , 2021, 12, 678487.	2.2	18
11	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
12	Evidence for Involvement of Nonclassical Pathways in the Protection From UV-Induced DNA Damage by Vitamin-Related Compounds. <i>JBMR Plus</i> , 2021, 5, e10555.	1.3	13
13	1,25-Dihydroxyvitamin D <sub>3</sub> and 20-Hydroxyvitamin D <sub>3</sub> Upregulate LAIR-1 and Attenuate Collagen Induced Arthritis. <i>International Journal of Molecular Sciences</i> , 2021, 22, 13342.	1.8	9
14	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
15	Hydroxylumisterols, Photoproducts of Pre-Vitamin D <sub>3</sub> , Protect Human Keratinocytes against UVB-Induced Damage. <i>International Journal of Molecular Sciences</i> , 2020, 21, 9374.	1.8	23
16	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
17	Photoprotective Properties of Vitamin D and Lumisterol Hydroxyderivatives. <i>Cell Biochemistry and Biophysics</i> , 2020, 78, 165-180.	0.9	113
18	Detection of 7-Dehydrocholesterol and Vitamin D <sub>3</sub> Derivatives in Honey. <i>Molecules</i> , 2020, 25, 2583.	1.7	21

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19	Extra-adrenal glucocorticoid biosynthesis: implications for autoimmune and inflammatory disorders. <i>Genes and Immunity</i> , 2020, 21, 150-168.	2.2	93
20	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
21	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
22	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
23	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
24	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
25	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
26	Investigation of 20S-hydroxyvitamin D3 analogs and their 1 $\alpha$ -OH derivatives as potent vitamin D receptor agonists with anti-inflammatory activities. <i>Scientific Reports</i> , 2018, 8, 1478.	1.6	38
27	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
28	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
29	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
30	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
31	1 $\alpha$ ,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
32	Characterization of a new pathway that activates lumisterol in vivo to biologically active hydroxylumisterols. <i>Scientific Reports</i> , 2017, 7, 11434.	1.6	64
33	Endogenously produced nonclassical vitamin D hydroxy-metabolites act as biased agonists on VDR and inverse agonists on ROR $\alpha$ and ROR $\beta$ . <i>Journal of Steroid Biochemistry and Molecular Biology</i> , 2017, 173, 42-56.	1.2	117
34	Noncalcemic 20-hydroxyvitamin D3 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
35	Vitamin D derivatives enhance cytotoxic effects of H2O2 or cisplatin on human keratinocytes. <i>Steroids</i> , 2016, 110, 49-61.	0.8	47
36	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

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37	Hydroxylation of 20-hydroxyvitamin D3 by human CYP3A4. <i>Journal of Steroid Biochemistry and Molecular Biology</i> , 2016, 159, 131-141.	1.2	19
38	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
39	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
40	Classical and non-classical metabolic transformation of vitamin D in dermal fibroblasts. <i>Experimental Dermatology</i> , 2016, 25, 231-232.	1.4	54
41	Design, Synthesis and Biological Activities of Novel Gemini 20S-Hydroxyvitamin D3 Analogs. <i>Anticancer Research</i> , 2016, 36, 877-86.	0.5	7
42	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
43	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
44	On the role of skin in the regulation of local and systemic steroidogenic activities. <i>Steroids</i> , 2015, 103, 72-88.	0.8	141
45	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
46	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
47	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
48	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
49	Chemical Synthesis and Biological Activities of 20 <i>S</i> ,24 <i>S</i> / <i>R</i> -Dihydroxyvitamin D3 Epimers and Their 1 <i>±</i> -Hydroxyl Derivatives. <i>Journal of Medicinal Chemistry</i> , 2015, 58, 7881-7887.	2.9	22
50	Vitamin D as an adjuvant in melanoma therapy. <i>Melanoma Management</i> , 2015, 2, 1-4.	0.1	11
51	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
52	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
53	CYP24A1 Expression Inversely Correlates with Melanoma Progression: Clinic-Pathological Studies. <i>International Journal of Molecular Sciences</i> , 2014, 15, 19000-19017.	1.8	35
54	ROR $\alpha$ and ROR $\beta$ are expressed in human skin and serve as receptors for endogenously produced noncalcemic 20-hydroxy- and 20,23-dihydroxyvitamin D. <i>FASEB Journal</i> , 2014, 28, 2775-2789.	0.2	232

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55	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
56	In vivo production of novel vitamin D <sub>2</sub> 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
57	Cutaneous glucocorticosteroidogenesis: securing local homeostasis and the skin integrity. <i>Experimental Dermatology</i> , 2014, 23, 369-374.	1.4	65
58	Metabolism of 20-hydroxyvitamin D <sub>3</sub> by mouse liver microsomes. <i>Journal of Steroid Biochemistry and Molecular Biology</i> , 2014, 144, 286-293.	1.2	12
59	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
60	Kinetic analysis of human CYP24A1 metabolism of vitamin D via the C24 $\alpha$ -oxidation pathway. <i>FEBS Journal</i> , 2014, 281, 3280-3296.	2.2	39
61	Novel vitamin D analogs as potential therapeutics: metabolism, toxicity profiling, and antiproliferative activity. <i>Anticancer Research</i> , 2014, 34, 2153-63.	0.5	44
62	Optimized 25-hydroxyvitamin D analysis using liquid $\rightarrow$ 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
63	20 <i>S</i> -Hydroxyvitamin D <sub>3</sub> , Noncalcemic Product of CYP11A1 Action on Vitamin D <sub>3</sub> , Exhibits Potent Antifibrogenic Activity in Vivo. <i>Journal of Clinical Endocrinology and Metabolism</i> , 2013, 98, E298-E303.	1.8	76
64	Novel vitamin D photoproducts and their precursors in the skin. <i>Dermato-Endocrinology</i> , 2013, 5, 7-19.	1.9	56
65	Hydroxylation of CYP11A1-Derived Products of Vitamin D <sub>3</sub> Metabolism by Human and Mouse CYP27B1. <i>Drug Metabolism and Disposition</i> , 2013, 41, 1112-1124.	1.7	39
66	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
67	Rat CYP24A1 acts on 20-hydroxyvitamin D <sub>3</sub> producing hydroxylated products with increased biological activity. <i>Biochemical Pharmacology</i> , 2012, 84, 1696-1704.	2.0	40
68	Cytochrome P450 $\alpha$ -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
69	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
70	<i>In vivo</i> evidence for a novel pathway of vitamin D <sub>3</sub> metabolism initiated by P450 $\alpha$ and modified by CYP27B1. <i>FASEB Journal</i> , 2012, 26, 3901-3915.	0.2	250
71	20-hydroxyvitamin D <sub>2</sub> inhibits proliferation of cancer cells with high efficacy while being non-toxic. <i>Anticancer Research</i> , 2012, 32, 739-46.	0.5	61
72	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

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73	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
74	Production of 22-Hydroxy Metabolites of Vitamin D3 by Cytochrome P450 <sub>scc</sub> (CYP11A1) and Analysis of Their Biological Activities on Skin Cells. <i>Drug Metabolism and Disposition</i> , 2011, 39, 1577-1588.	1.7	80
75	Vitamin D Analogs 17,20S(OH) <sub>2</sub> pD and 17,20R(OH) <sub>2</sub> pD Are Noncalcemic and Exhibit Antifibrotic Activity. <i>Journal of Investigative Dermatology</i> , 2011, 131, 1167-1169.	0.3	49
76	20-Hydroxyvitamin D <sub>2</sub> 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
77	20,23-dihydroxyvitamin D <sub>3</sub> , novel P450 <sub>scc</sub> product, stimulates differentiation and inhibits proliferation and NF- $\kappa$ B activity in human keratinocytes. <i>Journal of Cellular Physiology</i> , 2010, 223, 36-48.	2.0	96
78	Products of Vitamin D3 or 7-Dehydrocholesterol Metabolism by Cytochrome P450 <sub>scc</sub> Show Anti-Leukemia Effects, Having Low or Absent Calcemic Activity. <i>PLoS ONE</i> , 2010, 5, e9907.	1.1	135
79	Purified Mouse CYP27B1 Can Hydroxylate 20,23-Dihydroxyvitamin D <sub>3</sub> , Producing 1 $\alpha$ ,20,23-Trihydroxyvitamin D <sub>3</sub> , Which Has Altered Biological Activity. <i>Drug Metabolism and Disposition</i> , 2010, 38, 1553-1559.	1.7	38
80	Chemical synthesis of 20S-hydroxyvitamin D <sub>3</sub> , which shows antiproliferative activity. <i>Steroids</i> , 2010, 75, 926-935.	0.8	61
81	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
82	20-Hydroxycholecalciferol, Product of Vitamin D3 Hydroxylation by P450 <sub>scc</sub> , Decreases NF- $\kappa$ B Activity by Increasing I $\kappa$ B $\alpha$ Levels in Human Keratinocytes. <i>PLoS ONE</i> , 2009, 4, e5988.	1.1	119
83	Pathways and products for the metabolism of vitamin D3 by cytochrome P450 <sub>scc</sub> . <i>FEBS Journal</i> , 2008, 275, 2585-2596.	2.2	109
84	20-Hydroxyvitamin D <sub>3</sub> , a Product of Vitamin D3 Hydroxylation by Cytochrome P450 <sub>scc</sub> , Stimulates Keratinocyte Differentiation. <i>Journal of Investigative Dermatology</i> , 2008, 128, 2271-2280.	0.3	111
85	Metabolism of 1 $\alpha$ -hydroxyvitamin D <sub>3</sub> by cytochrome P450 <sub>scc</sub> to biologically active 1 $\alpha$ ,20-dihydroxyvitamin D <sub>3</sub> . <i>Journal of Steroid Biochemistry and Molecular Biology</i> , 2008, 112, 213-219.	1.2	46
86	Kinetics of vitamin D <sub>3</sub> metabolism by cytochrome P450 <sub>scc</sub> (CYP11A1) in phospholipid vesicles and cyclodextrin. <i>International Journal of Biochemistry and Cell Biology</i> , 2008, 40, 2619-2626.	1.2	47
87	The cytochrome P450 <sub>scc</sub> system opens an alternate pathway of vitamin D <sub>3</sub> metabolism. <i>FEBS Journal</i> , 2005, 272, 4080-4090.	2.2	142
88	A novel pathway for sequential transformation of 7-dehydrocholesterol and expression of the P450 <sub>scc</sub> system in mammalian skin. <i>FEBS Journal</i> , 2004, 271, 4178-4188.	0.2	219
89	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
90	Placental cytochrome P450 <sub>scc</sub> (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

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91	Oxidized adrenodoxin acts as a competitive inhibitor of cytochrome P450 <sub>sc</sub> in mitochondria from the human placenta. FEBS Journal, 2001, 268, 2338-2343.	0.2	18
92	The concentration of adrenodoxin reductase limits cytochrome P450 <sub>sc</sub> activity in the human placenta. FEBS Journal, 1999, 263, 319-325.	0.2	32
93	Electron Transfer to Cytochrome P-450 <sub>sc</sub> Limits Cholesterol-Side-Chain-Cleavage Activity in the Human Placenta. FEBS Journal, 1997, 244, 835-839.	0.2	24
94	Side-chain specificities of human and bovine cytochromes P-450 <sub>sc</sub> . FEBS Journal, 1993, 217, 209-215.	0.2	39
95	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. FEBS Journal, 1989, 186, 255-259.	0.2	33
96	Ferredoxin reductase levels in the ovaries of pigs and superovulated rats during follicular cell growth and luteinization. FEBS Journal, 1986, 161, 629-633.	0.2	8
97	Purification and analysis of phospholipids in the inner mitochondrial membrane fraction of bovine corpus luteum, and properties of cytochrome P-450 <sub>sc</sub> incorporated into vesicles prepared from these phospholipids. FEBS Journal, 1985, 148, 379-384.	0.2	22