

## List of ten important publications (First or the corresponding author)

No.	Paper details	Remarks
1.	<p><b>Goswami R</b>, Gupta N, Goswami D, Marwaha R, Tandon N, Kochupillai N, Prevalence and significance of low 25(OH)D in normal subjects in Delhi-North India, Am J Clin Nutr, 2000; S</p> <p><b>Specific contribution of the nominee:</b> Dr Goswami as the first author was responsible for executing, analysis and writing this study along with his mentor-teacher Professor N Kochupillai. 72: 472-75, <b>Impact factor = 6.6</b></p>	<p>This is the first systematic study, which showed high prevalence of vitamin D deficiency among general population in India. This study helped understand the cause of metabolic bone diseases (rickets, osteomalacia and osteoporosis) widespread in India and their rational treatment in India. This lead work triggered a large number of studies and got cited nearly 500 times in various indexed publications till 2022</p>
2.	<p><b>Goswami R*</b>, Gupta N, Ray D, Singh N, Tomar N Pattern of 25-hydroxy vitamin D response at short (2 month) and long (1 year) interval after 8 weeks of oral supplementation with cholecalciferol in Asian Indians with chronic hypovitaminosis D <b>Br J Nutr</b> 2008;100:526-9, <b>Impact</b></p> <p><b>Specific contribution of the nominee:</b> Dr Goswami conceptualized this study and also executed it as the lead author including enrollment, supplementation, analysis and publishing this study as <b>corresponding author</b> <b>Factor = 2.7</b></p>	<p>This article described for the first an effective and simple schedule for normalizing vitamin-D levels in apparently healthy urban Indians with vitamin-D deficiency. This regime is being used widely in clinical practice in India since the publication of this work in 2008.</p>
3.	<p><b>Goswami R*</b>, Vatsa M, Sreenivas V, Singh U, Gupta N, Lakshmy R, Aggarwal S, Ganapathy A, Joshi P, Bhatia H. Skeletal Muscle Strength in Young Asian Indian Females after Vitamin D and Calcium. <b>J Clin Endocrinol Metab.</b> 2012;97:4709-16</p> <p><b>Specific contribution of the nominee:</b> Dr Goswami conceptualized this study and also executed it as the first author including enrollment, supplementation, analysis and publishing this study as <b>corresponding author</b> <b>Impact Factor = 6.7</b></p>	<p>This double-blinded factorial design randomized study investigated extra skeletal manifestation of vitamin-D. The results showed that six months of vitamin-D and calcium supplementation either alone or together did not lead to significant change in skeletal muscle strength of young females. This important study changed the prevailing concept on role of vitamin-D on muscle strength. It was accompanied by an Editorial in this prestigious Journal (please see next article).</p>
4.	<p>Dharmshaktu P, Saha S, Kar P, Sreenivas V, Ramakrishnan L, Goswami R*. Absence of vitamin D deficiency among common outdoor workers in Delhi. <b>Clin Endocrinol (Oxf).</b> 2019;; 91(2):356-362. <b>Impact Factor = 3.2</b></p> <p><b>Specific contribution of the nominee:</b> Dr Goswami conceptualized this study and led the team to enroll the subjects, their investigations, analysis and publishing this study as <b>corresponding author</b></p>	<p>The data generated from a large group of outdoors i.e. constructions worker, hawkers, rikshaw and autorickshaw drivers, gardeners, etc. showed absence of significant vitamin D deficiency in most outdoors. This information is helping physicians in prescribing vitamin D deficiency to only select group of normal Indians affected due to indoor work style and not indiscreetly to all. The information is providing a support to the concept of 'not to use mass and mandatory vitamin D fortification for the whole of Indian population' but only discreetly for indoors.</p>

5.	<p><b>Goswami R*</b>, Brown EM, Kochupillai N, Gupta N, Rani R, Kifor O, Chattopadhyay N, Prevalence of calcium sensing receptor autoantibodies in patients with sporadic idiopathic hypoparathyroidism, <b>Eur J Endocrinol</b>, 2004;150:9-18, <b>Impact Factor =3.0</b></p> <p><b>Specific contribution of the nominee:</b> Dr Goswami conceptualized this study and led the team to enroll the subjects, their investigations, analysis and publishing this study as <b>lead and corresponding author</b>. All the work including patient enrollment and laboratory investigations were carried out in Dr Goswami laboratory at AIIMS. Foreign collaboration involved getting positive control antibody for Calcium sensing receptor for the western blots from Dr Edward Brown , Boston, USA</p>	<p>This was the first study which showed that a subset of patients with idiopathic hypoparathyroidism have autoantibodies against calcium sensing receptor. This provides a clue for the autoimmune etiology in patients with idiopathic hypoparathyroidism</p>
6.	<p>Tomar N, Bora H, Singh R, Gupta N, Kaur P, Chauhan S, Sharma Y, <b>Goswami R*</b>, Presence and significance of a R110W mutation in the DNA binding domain of GCM2 gene in patients with isolated hypoparathyroidism and their family members. <b>Eur J Endocrinol</b>. 2010;162:407-21 <b>Impact Factor =3.8</b></p> <p><b>Specific contribution of the nominee:</b> Dr Goswami conceptualized this study and led the team to enroll the subjects, their investigations, analysis and publishing this study as <b>lead and corresponding author</b>. All the work including patient enrollment and laboratory investigations were carried out in Dr Goswami laboratory at AIIMS.</p>	<p>GCM2 is an important parathyroid specific transcription factor. This study showed for the first time that up to 12% of the patients with idiopathic hypoparathyroidism have functionally relevant heterologous mutation of the GCM2 gene. Thus, several of the patients labeled as idiopathic hypoparathyroidism might be harboring a genetic cause for the disease.</p>
7.	<p>Saha S, <b>Goswami R*</b>, Auditing the Efficacy and Safety of Alfacalcidol and Calcium Therapy in Idiopathic Hypoparathyroidism. <b>J Clin Endocrinol Metab</b>. 2019 104(4):1325-1335. <b>Impact Factor = 5.8</b></p> <p><b>Specific contribution of the nominee:</b> Dr Goswami conceptualized this study and led the team to enroll the subjects, their investigations, analysis and publishing this study as <b>lead and corresponding author</b>. All the work including patient enrollment and laboratory investigations were carried out in Dr Goswami laboratory at AIIMS.</p>	<p>This study audited the therapy used for the management of hypoparathyroidism patients and shown that complete efficacy of alfacalcidol in all the Indian patients with normal calcemic control. Further, through a well conducted RCT, the author also showed equal efficacy of both alfacalcidol and calcitriol in the management of hypoparathyroidism (<b>J Clin Endocrinol Metabo, 2021</b>). This is helping physicians in prescribing oral calcium and vitamin D therapy for the management of hypoparathyroidism with confidence rather than tilt for subcutaneous PTH therapy as a routine.</p>
8.	<p><b>Goswami R*</b>, Sharma R, Sreenivas V, Gupta N, Ganapathy A, Das S. Prevalence and progression of basal ganglia calcification and its pathogenic mechanism in patients with idiopathic hypoparathyroidism. <b>Clin Endocrinol (Oxf)</b>. 2012;77::200-6 <b>Impact Factor =3.4</b></p> <p><b>Specific contribution of the nominee:</b> Dr Goswami conceptualized this study and led the team to enroll the subjects, their investigations, analysis and publishing this study as <b>lead and corresponding author</b></p>	<p>This paper showed that calcification in hypoparathyroidism is linked to increased serum phosphate level rather than serum calcium alone, leading to a novel strategy to prevent occurrence and progression of this complication</p>

9.	<p><b>Goswami R*</b>, Millo T, Mishra S, Das M, Kapoor M, Tomar N, Saha S, Roy TS, Sreenivas V. Expression of osteogenic molecules in the caudate nucleus and gray matter and their potential relevance for basal ganglia calcification in hypoparathyroidism. <b>J Clin Endocrinol Metab.</b> 2014; 99:1741-8, <b>Impact Factor =6.7</b></p> <p><b>Specific contribution of the nominee:</b> Dr Goswami conceptualized this study and led the team to enroll the subjects, their investigations, analysis and publishing this study as <b>lead and corresponding author</b>. All the work including patient enrollment and laboratory investigations were carried out in Dr Goswami laboratory at AIIMS.</p>	<p>Basal ganglia calcification is an important clinical feature of hypoparathyroidism. However, little information was available on its pathogenesis. This paper described the molecular basis of its occurrence using a novel approach. The Editors of the highest ranking Journal of Endocrinology i.e. JCEM of the Endocrine Society, USA have acknowledged the significance of this work and included it in 'Endocrine focus' on the Journal home page.</p>
10.	<p>Kar P, Millo T, Saha S, Mahtab S, Agarwal S, <b>Goswami R*</b>. Osteogenic mechanisms of basal ganglia calcification and its ex-vivo model in <b>Endocrinology.</b> 2021 Feb 4:bqab024. doi: 10.1210/endo/bqab024. <b>Impact Factor = 4.3</b></p> <p><b>Specific contribution of the nominee:</b> Dr Goswami conceptualized this study and led the team to enroll the subjects, their investigations, analysis and publishing this study as <b>corresponding author</b>. All the work including patient enrollment and laboratory investigations were carried out in Dr Goswami laboratory at AIIMS.</p>	<p>Recently, an animal model of the basal ganglia calcification has been developed. This first ex-vivo model using rat striatal cell culture showed the detrimental effect of excessive phosphorus on striatal calcification, which is akin to basal ganglia calcification in humans. Such calcification worsened by calcium and calcitriol therapy in only a subset of rats provide basis as to why the progression of calcification is not observed in all hypoparathyroid patients during prolonged therapy (this work was further refined in a new model, <b>J Molecular Endocrinology 2023</b>)</p>

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