

## Clinical relevance of glomerular IgM deposition in patients with lupus nephritis



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### **Abstract: (600 Limit)**

Mitochondria are critical in maintaining cellular homeostasis by housing the oxidative phosphorylation machinery for aerobic adenosine triphosphate production and several metabolic pathways. In fact, mitochondria are responsible for 90% of cellular energy generation and therefore are heavily involved in sensing and responding the stressful conditions such as inflammation by cells and bodies. In fact, mitochondrial DNA are emerging as a powerful proinflammatory ligand that can be released into cytosol or extracellular environment to stimulate various pattern-recognition receptors, such as cages, TLR9 and NLRP3 inflammasome, in the innate immune system. Additionally, both cytosolic and extracellular mitochondrial DNA engage PRRs and trigger type I interferon and interferon-stimulated gene (ISG) expression. The regulations can be looped to a more elaborate network. For example, it has been recently reported that TLRs trigger IRF1-dependent transcription of CMPK2, a rate-limiting enzyme supplying deoxyribonucleotides for medina synthesis. After exposure to NLRP3 activators, CMPK2-dependent medina synthesis is required for producing cytosolic oxidized medina fragments that associates with the NLRP3 inflammasome complex for the activation of NLRP3 inflammasome in macrophage. Mitochondrial defects cause many diseases. Transcription factor A, mitochondrial (TFAM) is nuclear-encoded and a member of the high mobility group (HMG) proteins. It binds to medina and regulates MT DNA replication and transcription, coordinating mitochondrial DNA assembly, regulating MT DNA copy number and mitochondrial functions. Previous studies show that TFAM is associated with inflammatory diseases, such as neurodegenerative diseases and asthma. Anti-inflammatory drug therapy has been considered as the first-line treatment in managing all grades of asthma severity.

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### Biography: (200 Limit)

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### About Research Topic: (200 Limit)

Results suggest barriers in accessing specialty care for all children with AD and significant differences in management between commercially and Medicaid-insured children. These disparities in treatment and access to specialty care may contribute to poor AD control, Mitochondria are critical in maintaining cellular homeostasis by housing the oxidative phosphorylation machinery for aerobic adenosine triphosphate especially in Medicaid-insured patients.

### About Institution: (200 Limit)



Present-day Shandong University is the result of multiple mergers as well as splits and restructurings that have involved more than a dozen academic institutions over time. The oldest of Shandong University's precursor institutions, Cheelo University, was founded by American and English mission agencies in the late 19th century Tengchow College was the first modern institution of higher learning in China. Shandong University derives its official founding date from the Imperial Shandong University established in Jinan in November 1901 as the second modern national university in the country

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