Lanthanum ion increases histone H3 lysin27 Tri-methylation and induces target genes silencing in HUVEC challenged by LPS

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Lanthanum, a rare earths element, has many applications in medicine. Rare earths are reported to possess anti-cancer properties and regulate immune response. It was found in residents living in rare earth mineral area that their exposure to rare earth may influence blood pressure, blood glucose and other physiological indexes. As known, endothelium lines the interior of blood vessels, plays a complex role in oncology. The effects of lanthanum ions on human endothelial cell remain largely unknown. In this study, we propose that NF-κB signaling and its downstream gene jmjd3 would be potential targets being inhibited by lanthanum ion in activated endothelium. The data indicated that the rare earths metal is capable of affecting the enzyme jmjd3 and reversing post-translational histone modifications in human endothelium induced by LPS. These finding would provide new insight in the development of medicine value of rare earths element.

Biography

Fei Guo has completed her PhD from Nanchang University and postdoctoral studies from Harvard Medical School. She has published more than 10 papers in reputed journals.

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