BIOTECHNOLOGY AND BIOSCIENCES SEMINARS

Dipartimento di Biotecnologie e Bioscienze – UNIMIB

giovedì 16 febbraio, 2023, ore 16:30, edificio BIOS, aula U3-08 / Webex

High Mobility Group Box 1 (HMGB1) and sterile inflammation: From tissue damage & regeneration to cancer immunity

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Abstract: A single protein, HMGB1, directs the triggering of inflammation, innate and adaptive immune responses, and tissue healing after damage.

HMGB1 is the best characterized damage-associated molecular pattern (DAMP), molecules that are normally inside the cell but are released after cell death, and allow the immune system to distinguish between antigens that are dangerous or not. Moreover, severely stressed cells actively release HMGB1 via a dedicated secretion pathway. Extracellular HMGB1 exists in multiple oxidation states, which direct the mutually exclusive choices of different binding partners and receptors.

Immune cells are first recruited to the damaged tissue and then activated by HMGB1; thereafter, HMGB1 supports tissue repair and healing.

Inevitably, HMGB1 also orchestrates the support of stressed but illegitimate tissues: tumors.

Concomitantly, HMGB1 enhances the immunogenicity of mutated proteins in the tumor, promoting anti-tumor responses and immunological memory.

Gli attestati di partecipazione al seminario sono validi anche per l'acquisizione dei CFU, per informazioni visitare la pagina del seminario

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