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# ABSTRACT BOOK

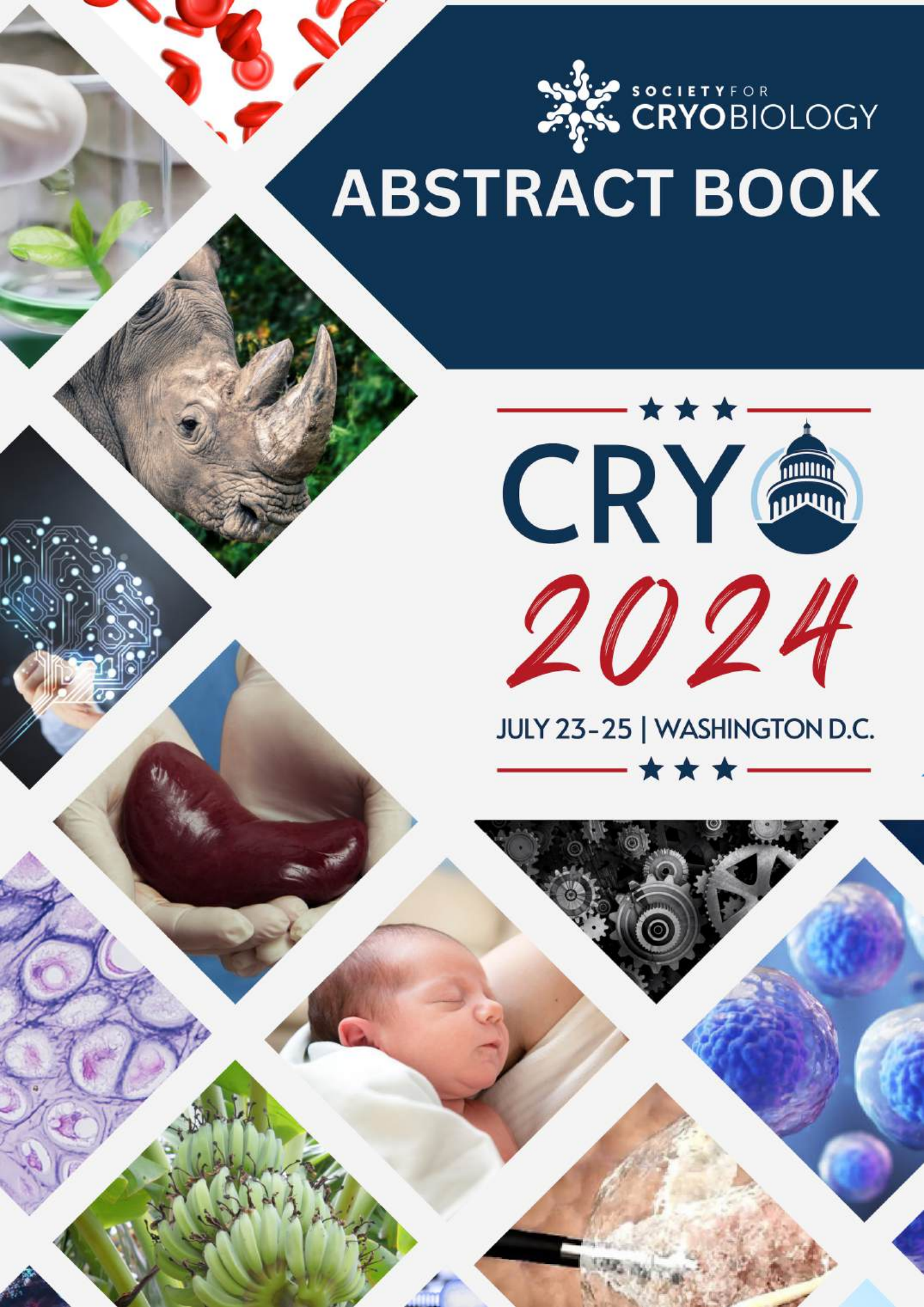


# CRY



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of a positive effect of TH at the early stage of MI development.

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### **P102 ERYPTOSIS IN RATS WITH POLYCYSTIC OVARY SYNDROME UNDER INTERMITTENT COLD EXPOSURE CONDITIONS**

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Eryptosis in polycystic ovary syndrome (PCOS) under intermittent cold exposure (ICE) conditions is an unexplored issue. 40 immature female rats of WAG population were divided into 5 groups: 1 – 8 intact rats; 2 – 8 rats, which were injected subcutaneously with 0.2 ml of purified, sterilized olive oil daily for 25 days; 3 – 8 rats that were subjected to ICE daily for 25 days; 4 – 8 rats with dehydroepiandrosterone (DHEA)-induced PCOS; 5 – 8 rats that were injected with DHEA against the background of ICE. Eryptosis was studied using flow cytometry by assessing the movement of the phospholipid phosphatidylserine from the inner layer to the outer layer of the membrane. The number of annexin V<sup>+</sup> erythrocytes (%), average fluorescence intensity (AFI) of annexin V, which was labeled with fluorescein isothiocyanate (annexin V-FITC), in annexin V<sup>+</sup> cells (conventional units) were analyzed. Indicators were presented as median and interquartile range ([25%; 75%]). The number of annexin V<sup>+</sup> erythrocytes did not

differ ( $p > 0.05$ ) in groups 2 (1.800 [0.99; 2.265]), 3 (1.845 [0.85; 2.82]), 5 (2.79 [2.02; 3.118]) compared to group 1 (2.080 [0.90; 2.312]), increased ( $p < 0.05$ ) in group 4 (3.97 [2.715; 5.093]) compared to group 1. The number of annexin V<sup>+</sup> erythrocytes was greater ( $p < 0.05$ ) in group 4 compared to group 5. The AFI of annexin V-FITC in annexin V<sup>+</sup> cells in group 1 was 3505 [3273; 4229]. Compared to the latter, the corresponding indicator did not change ( $p > 0.05$ ) in group 2 (3597 [3092; 4545]), decreased ( $p < 0.05$ ) in groups 3 (2503 [2120; 2810]) and 5 (2399 [2042; 3452]), and increased ( $p < 0.05$ ) in group 4 (4086 [3508; 4404]). The AFI of annexin V-FITC in annexin V<sup>+</sup> cells was greater ( $p < 0.05$ ) in group 4 compared to group 5. Thus, in DHEA-induced PCOS, eryptosis activation is noted. ICE against the background of DHEA administration normalizes the processes of eryptosis.

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### **P103 INFLUENCE OF FREEZE-WARMING AND STORAGE AT –196°C ON HYDROGEL ENCAPSULATED CATALASE ACTIVITY**

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Practical medical and biotechnological value of catalase stands out among other enzymes due to its significant antioxidant activity. Recently, catalase together with glucose oxidase has been used as a component of bioactive hydrogel systems when loading biocompatible hydrogel carriers with a cascade of enzymes. More

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