



# Raspberry extract attenuates the skin damage caused by solar radiation

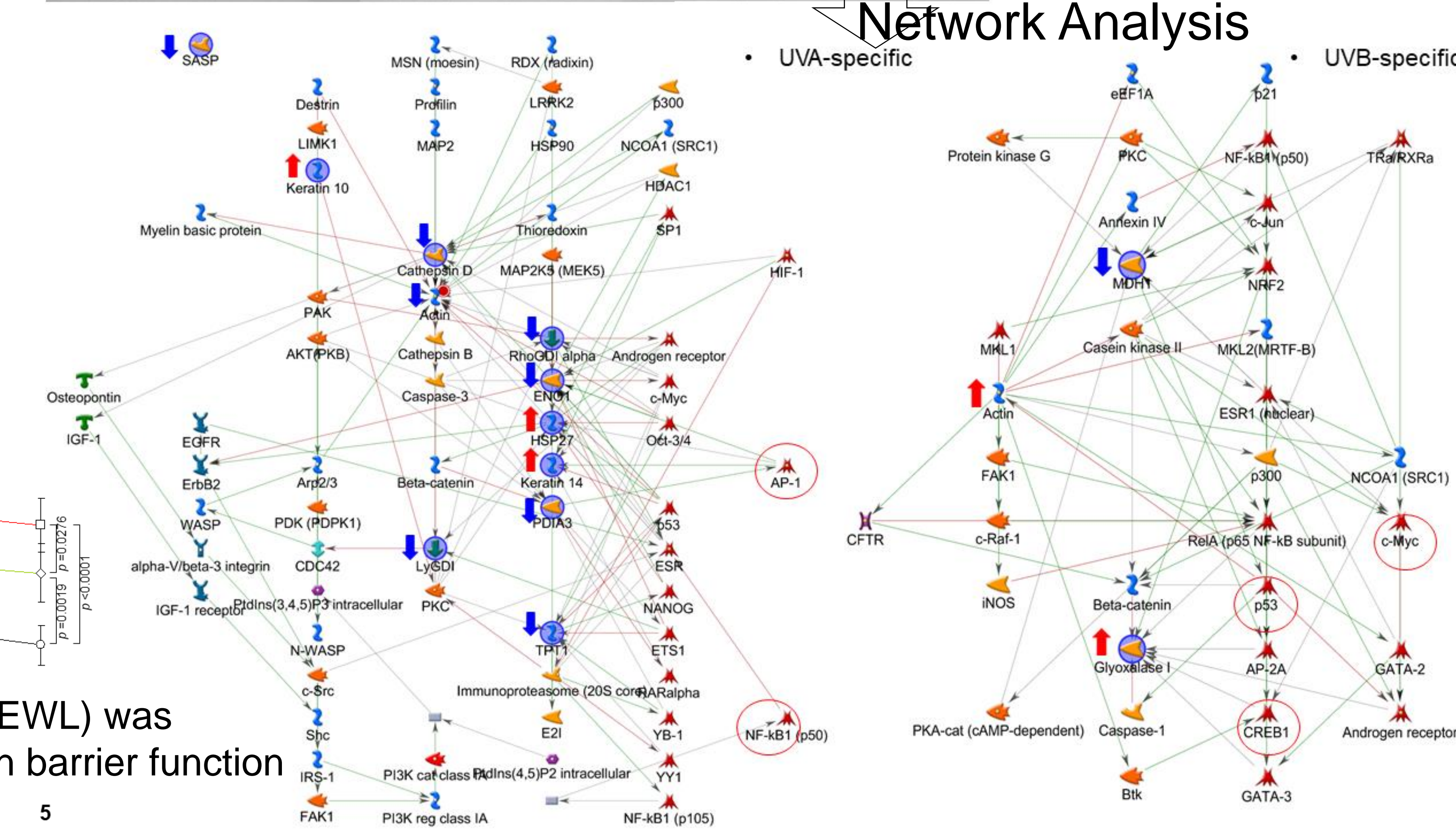
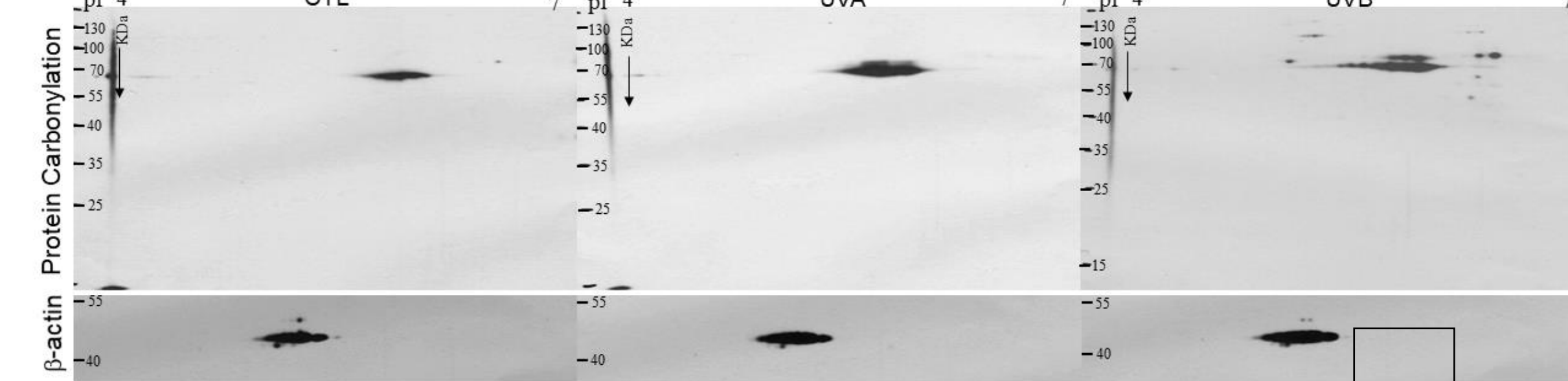
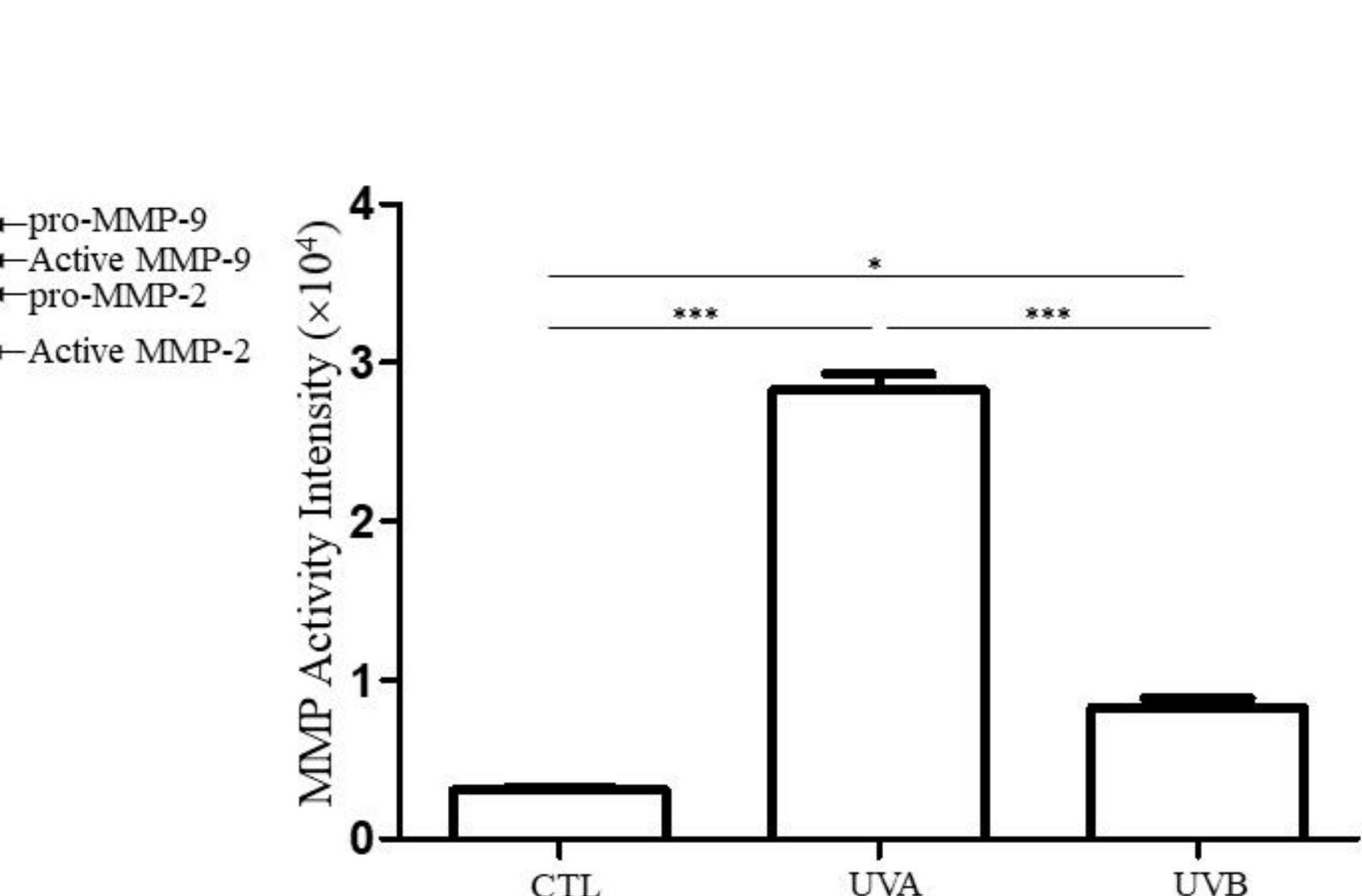
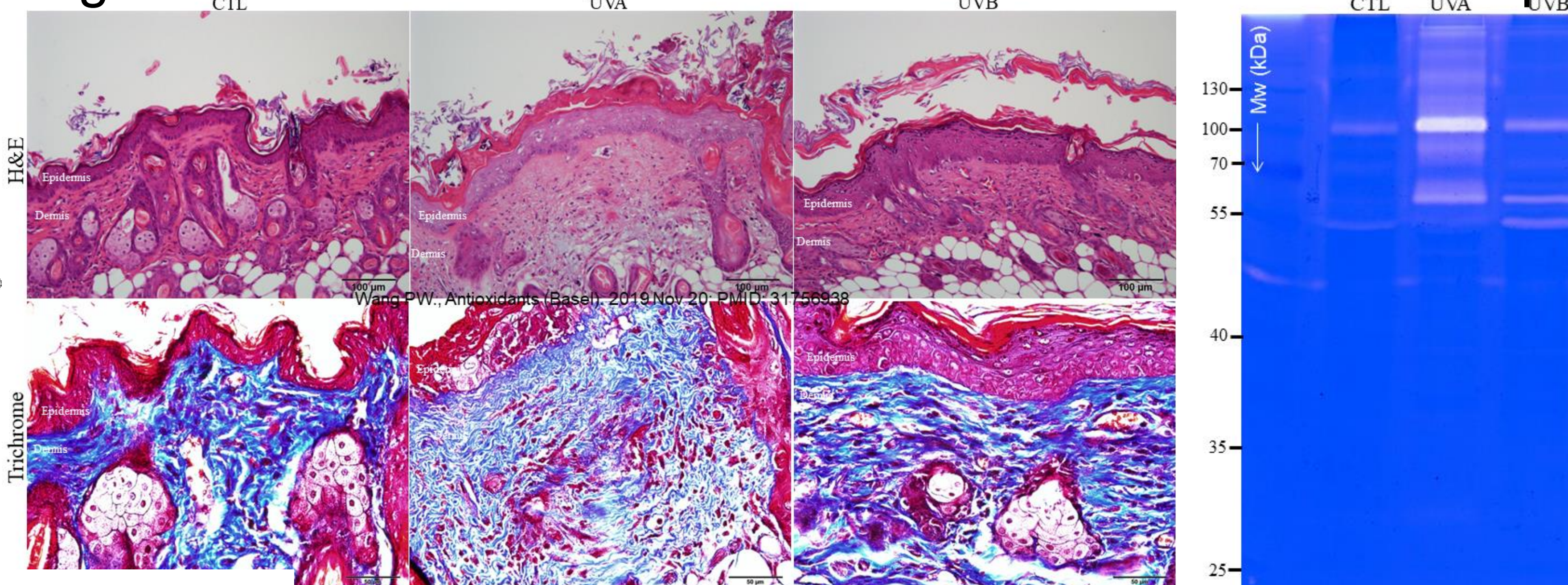
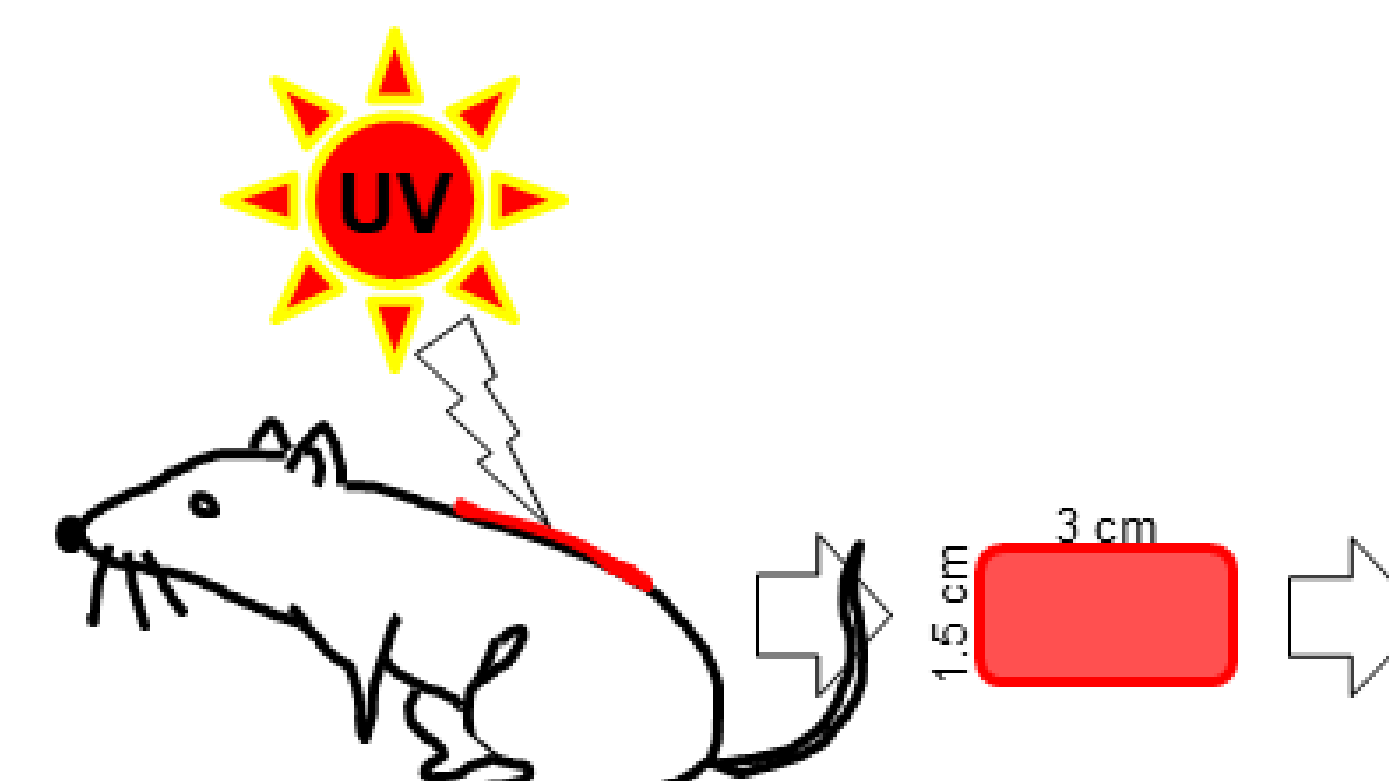
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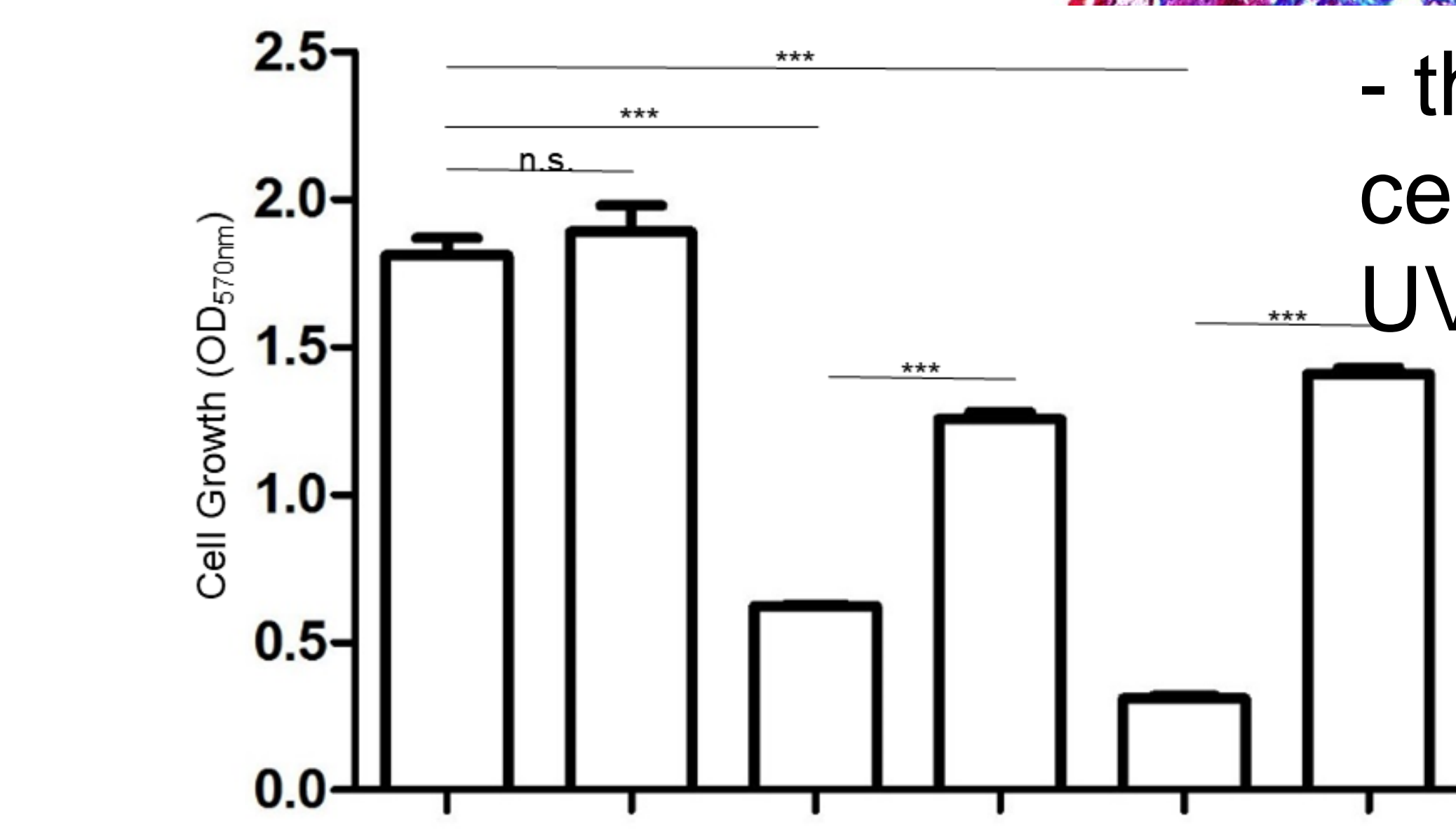
- **Background:** Solar radiation may mediate huge impact on skin structure and normal physiology while some natural product such as raspberry may perform photochemopreventive efficacy against solar UV damage. Traditional Chinese Medicine Book "Essential of Materia Medica" has described that raspberry could exhibit the effect of moistening the skin and reducing the redness as well as swelling of the skin.

- **Objective:** We applied systematic tools on mouse skin to investigate the efficacy of raspberry extract against the injuries elicited by solar irradiation.

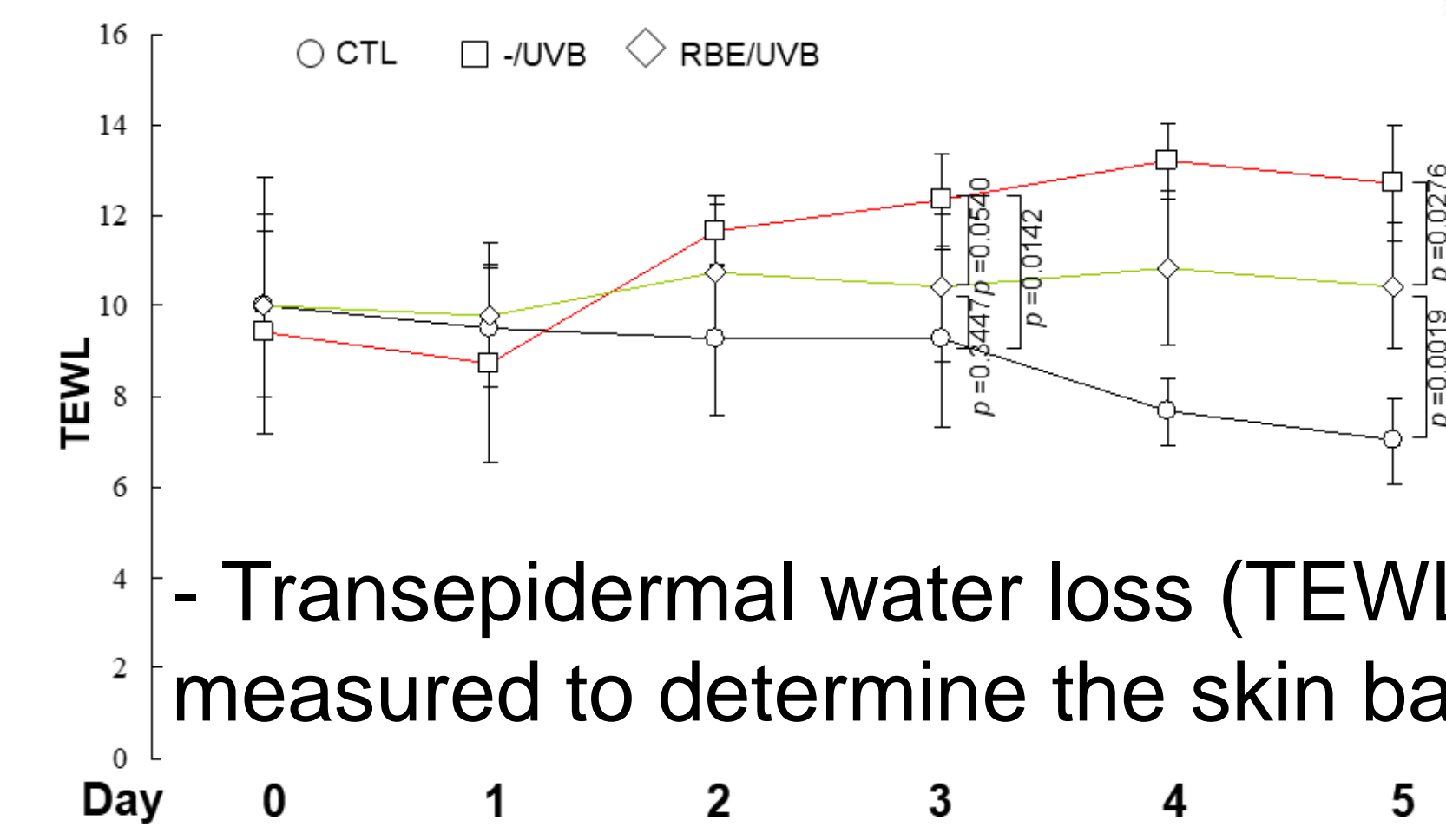
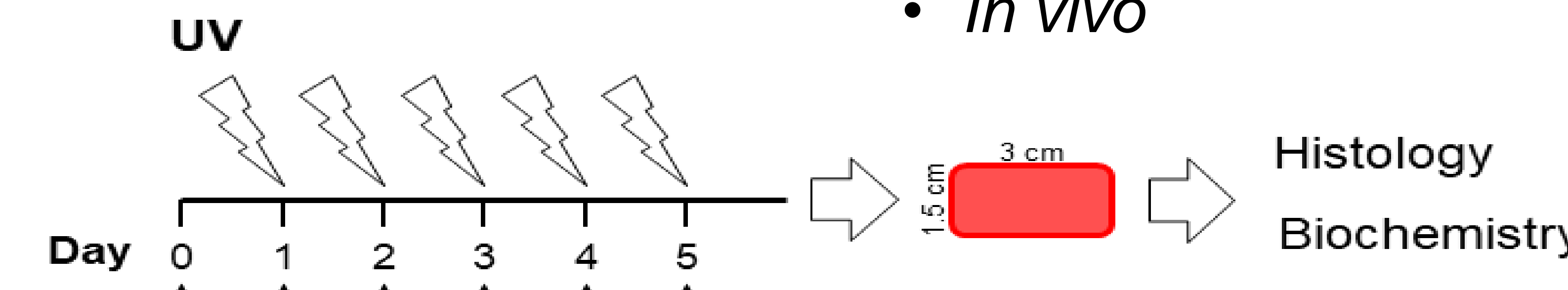
- **Results:** ✓ The histologic examination and MMP secretion of the mouse skin exposed to UVA or UVB. ✓ Exploring target proteins with proteome tools



• *In vitro*: HaCaT cell

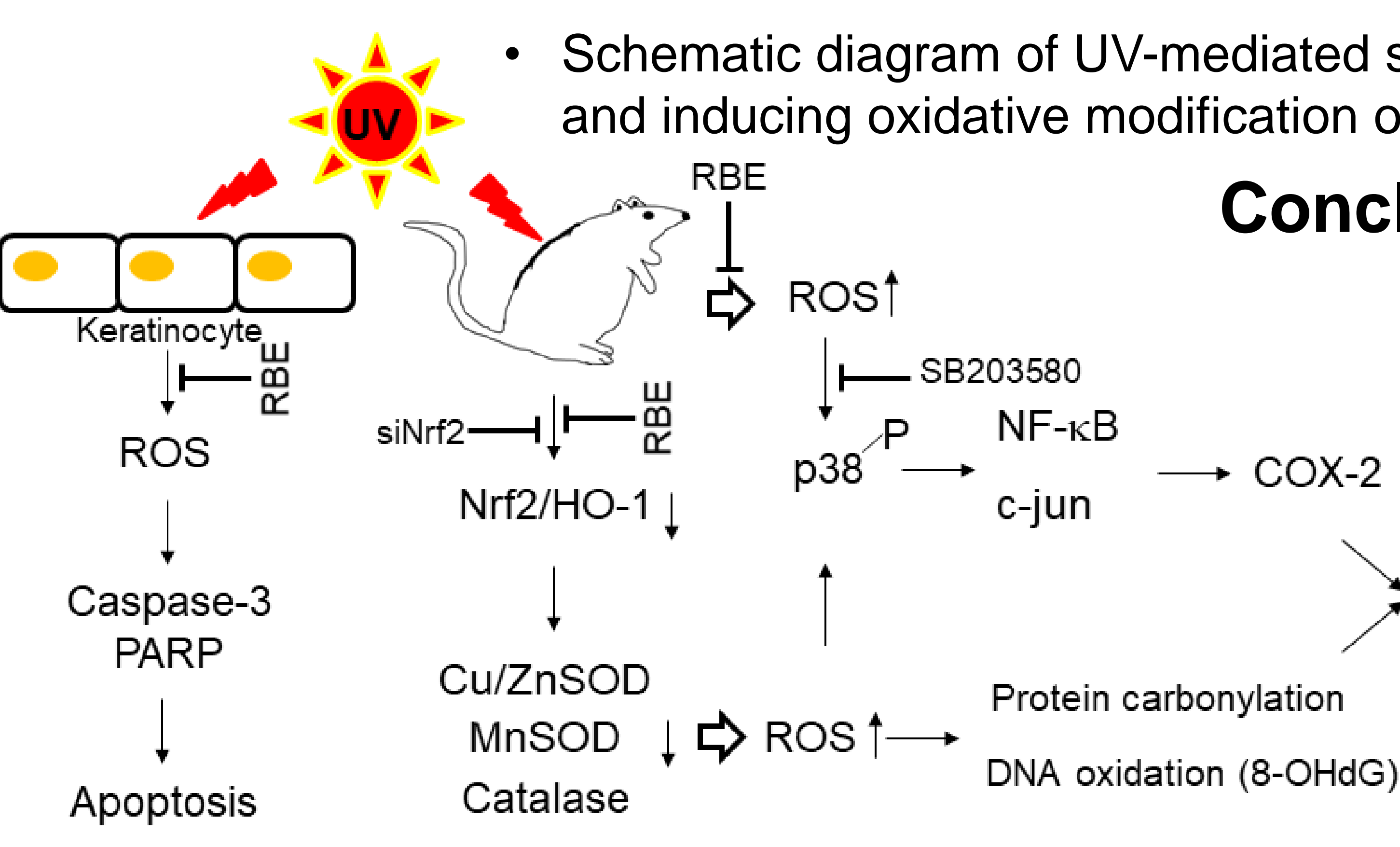
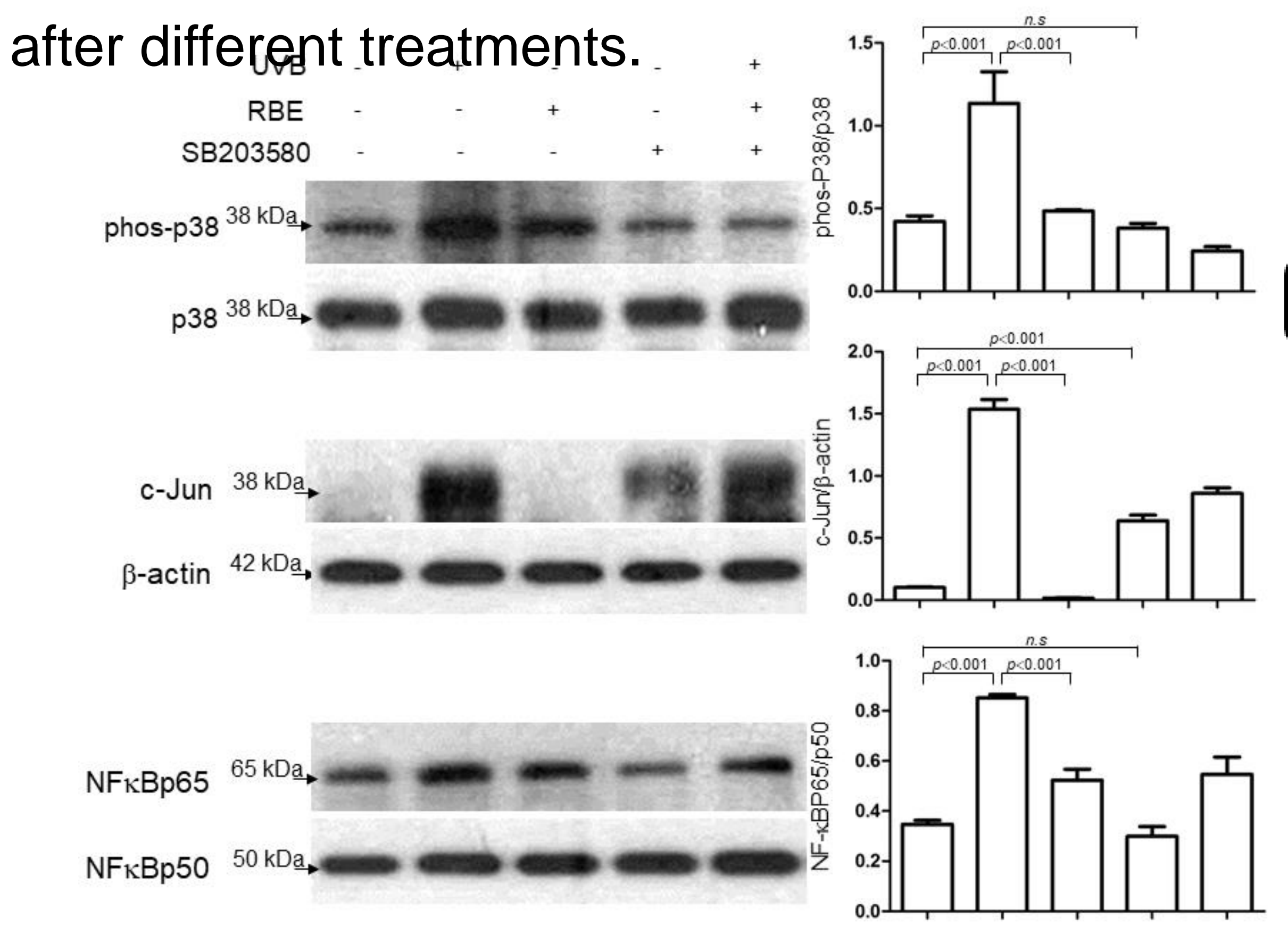
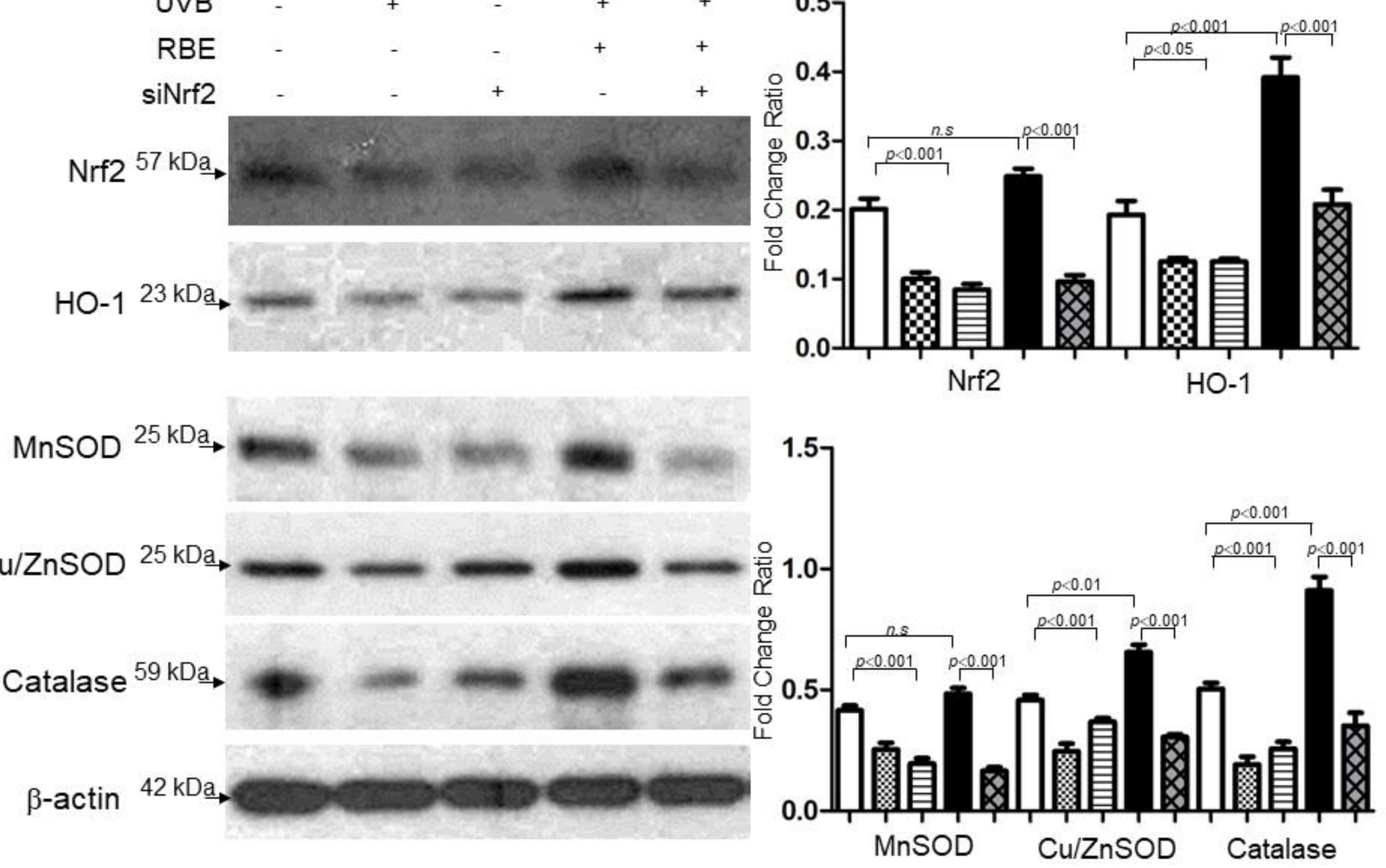


- the results showed that raspberry extract application could effectively attenuate the cell death caused by UV irradiation, suggesting that oxidative stress is a key event in UV-mediated skin cell death.



- Transepidermal water loss (TEWL) was measured to determine the skin barrier function

Validation of changes in protein expression after different treatments.



## Conclusion

- Raspberry extract could alleviate direct photodamage to the skin via removing the ROS and modulating the inflammatory responses, which may allow the development of novel strategies in protecting the skin against solar radiation.

## References:

- 1. Wang PW., Oxid Med Cell Longev. 2019 Jan 6; PMID: 30723535.
2. Wang PW., Antioxidants (Basel). 2019 Nov 20, PMID: 31756938.