

# Novel Anti-Inflammatory Compounds



Bridging the gap between research, commercialisation, and investors.



The Australian Research Network is a consulting company focused on emerging Australian technologies.

## SUMMARY OF OPPORTUNITY

An exciting opportunity exists in the consumer market to in-licence small molecules for treatment of inflammation and skin rejuvenation. Researchers in Australia have extracted novel compounds from a family of plants used in traditional medicine which have been passed from generation to generation for over 800 years. The plants were traditionally used as agents for relief against inflammation, pain and wound healing. The plant extracts have been found to possess remarkable anti-inflammatory and skin rejuvenation properties and are being reviewed for further applications.

## ANTI-INFLAMMATORY COMPOUND OPPORTUNITY

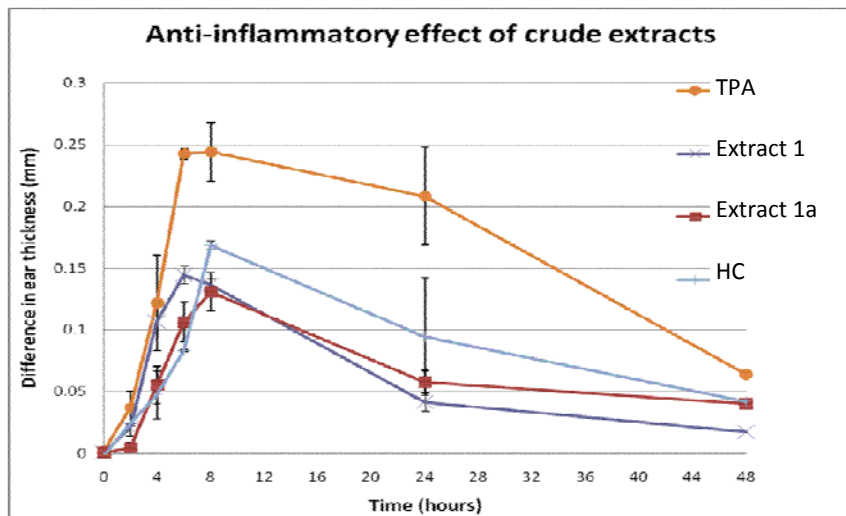
The effects of the plants were discovered by indigenous Australians and have been extensively used in traditional medicines. Crude extractions have been performed using routine techniques and tested in ear edema mouse models. The compounds within the crude extraction have been identified and the activity of each of the compounds has also been tested in the mouse ear edema models. The compounds that have been characterized are new to scientific literature.

## Benefits

- Can be used as an acute anti-inflammatory
- Has equivalent anti-inflammatory effects to corticosteroids
- Potential alternative therapeutic compound to corticosteroids

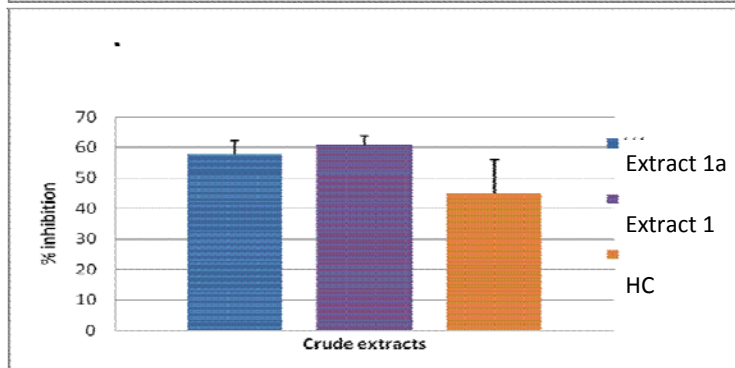
## Results

- Crude extracts show reduced inflammation



(Left) Reduced inflammation over time.

TPA is the negative control causing inflammation and hydrocortisone (HC) is a marketed anti-inflammatory (positive control)

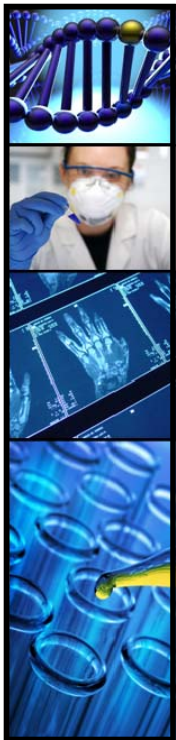


(Left) Average inhibition of inflammation after 48 hrs.

Crude extracts were administered topically at 0.4mg/ear. Hydrocortisone (HC) was administered at 2mg/ ear

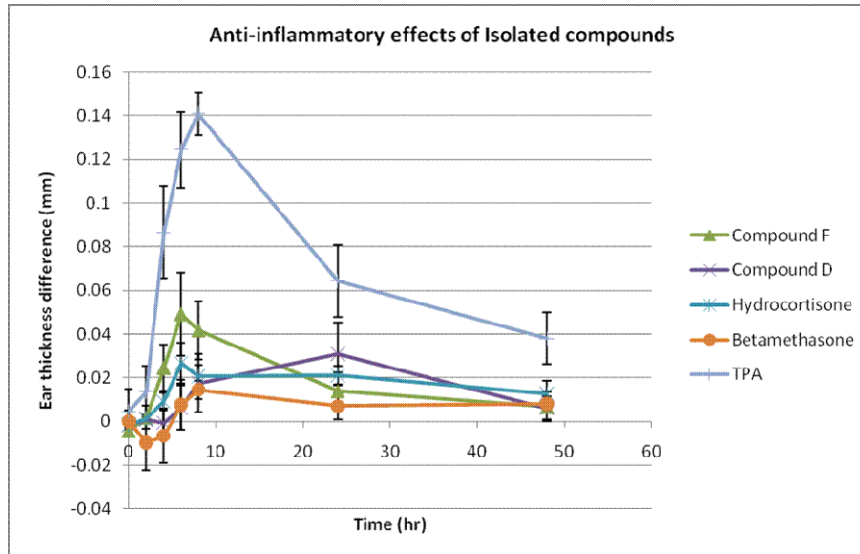
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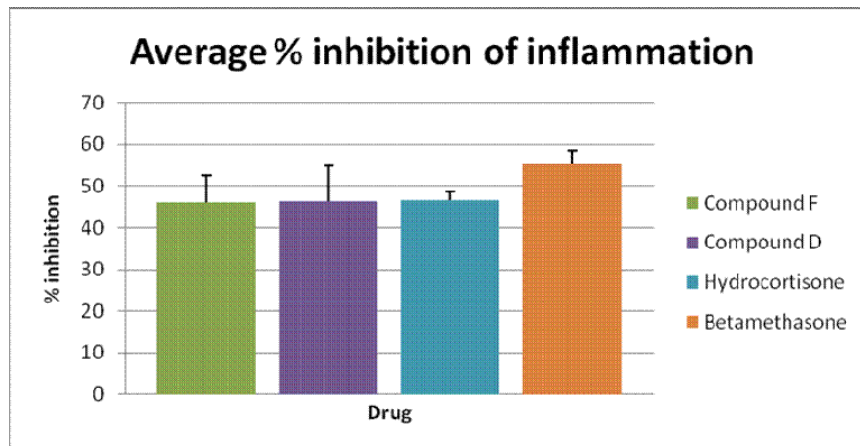
## Results (Cont'd)

- Isolated compounds show reduced inflammation



(Left) Compounds F and D have equivalent anti-inflammatory effects to hydrocortisone and betamethasone. TPA is the negative control.

- Isolated compounds show equivalent anti-inflammatory activity to known



(Left) Average inhibition of inflammation after 48hrs. Results are statistically significant and demonstrate equivalent inhibition of inflammation to hydrocortisone and betamethasone.

## On-going research

The research at the University of South Australia is world class. The team is focused on the clinical chemistry and mechanism of action studies at present and interested in partnerships to explore new animal models applicable to human disease.

## Opportunity

Development of the technology has created a patent portfolio of two PCT applications. A partnering opportunity is available with a company having demonstrated ability to manage novel inflammation programs into preclinical trials and beyond. The University of South Australia facilities and researchers are also well established to complete further proof of concept studies with partner funding.

## FOR FURTHER INFORMATION:

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