# Epidermolysis Bullosa Clinical Trial Summary

At Premier Specialists in Kogarah, Sydney, Australia, there are currently 4 epidermolysis bullosa (EB) clinical trials being conducted. Specifics of these 4 trials has been summarised in the table below. Please note this is a summary only, and further details and specifics may be missing.

<table>
<thead>
<tr>
<th>Sponsor</th>
<th>Investigational product (IP)</th>
<th>EB type</th>
<th>Hypothesis and Outcomes</th>
<th>Eligible participant</th>
<th>Trial</th>
<th>Recruitment</th>
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<tbody>
<tr>
<td>Amyrt Research Ltd</td>
<td>Topical cream containing 10% birch bark extract and 90% sunflower oil</td>
<td>EBS, JEB, DEB, Kindler syndrome</td>
<td>Betulae cortex (birch bark) extract is thought to accelerate the reepithelialisation of wounds due to an enhancement of keratinocyte proliferation, migration and differentiation. Assess efficacy of IP. Assess for closure of EB target wound. Assess for change in EB lesional BSA, wound infection, pain, itch an sleep.</td>
<td>Inclusion: EBS, JEB, DEB and Kindler syndrome. At least 4 years old. Male, or non pregnant female. Target EB wound between 10 to 50cm², and present for more than 21 days. Exclusion: Illness that may present safety risk, previous stem cell transplant, or any current or previous malignancy. Washout of 2 months for immunotherapy or chemotherapy, 1 month for systemic or topical steroid, 1 month for any investigational product, or 7 days for systemic antibiotics.</td>
<td>Twelve week, international, multicentre, randomised, double-blind, placebo-controlled phase III study. Participants will be randomised 1:1 to apply topical cream containing 10% birch bark extract and 90% sunflower oil or placebo (vehicle-control) to entire EB lesional area, and then dressed with a standard of care approved on occlusive dressing, at least every 4 days. There is a 24 month open label extension follow up study.</td>
<td>Recruitment open</td>
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<td>Castle Creek Pharmaceuticals, LLC</td>
<td>Topical diacerein 1% ointment</td>
<td>EBS all subtypes</td>
<td>The hypothesis is that the diacerein will inhibit interleukin 1β and other proinflammatory cytokines, and therefore reduce</td>
<td>Inclusion: EBS with a clinical or laboratory diagnosis, however, where there is no laboratory diagnosis the trial will include</td>
<td>Sixteen week, international, multicentre, randomised, double-blind, parallel-group phase II study. Participants will be</td>
<td>Recruitment open</td>
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Dermatology Trials Australia  
Premier Specialists  
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| expression of inducible nitric oxide synthase and tumour necrosis factor α. Assess safety and efficacy of IP. Assess change in pruritus, pain, mobility and lesion area. | a blood or saliva sample for laboratory genetic analysis. All known genetic mutations are acceptable (i.e. KRT5, KRT14, PLEC1, TGM5, PKP1, DSP, FERMT1 etc). At least 4 years old. Male, or non pregnant female. Total lesions surface area of at least 2% BSA (2x patient’s palmar surface size) with an overall IGA score of at least 3 (moderate). Exclusion: Condition which may present risk to participant or impair evaluation of lesion; or currently malignancy, diabetes mellitus, cardiac, renal or hepatic disease. Washout of 6 months for any diacerein containing product, 2 months for any immunotherapy or chemotherapy, 1 month for systemic or topical steroid, 1 month for topical allantoin, 7 days for systemic antibiotics. Use of systemic diuretics or cardiac glycosides. | randomised 1:1 to receive 8 weeks of topical diacerein 1% ointment daily or placebo (vehicle-control) to the EB treatment area for 8 weeks. An open label extension is soon to be released. |
| Non Sponsored (Being conducted by Premier Specialists, Australia and Stanford University, USA) | Topical sirolimus 2% ointment | EBS Keratin 5 and 14 mutation only | The hypothesis is that the mTOR inhibitor sirolimus will down regulate the translation of defective KRT5 protein in EBS, also reducing pain and itch. Assess foot function via the Foot Health Status Questionnaire; a validated tool to assess foot health. Assess safety and efficacy of IP. |
| Scioderm, INC | Topical cream containing 6% allantoin | EBS, RDEB, Junctional non-Herlitz EB | The exact mechanism of action of allantoin is still unknown. Testing has shown it to heal lesional skin and reduce blister outbreak. The literature suggests it works by multiple pathways, including reduction of inflammation, induction of growth of healthy tissue, stimulation of collagen and granulation tissue. It has also demonstrated antibacterial effects. Assess safety and efficacy of IP. Assess for closure of EB target wound. Assess for change in EB lesional BSA, and pain and itch. |
| | | | Inclusion: EBS with a keratin 5 or 14 mutation on genotyping. At least 5 years old. Male, or non pregnant female. Exclusion: Illness that may present safety risk or compliance issues. Washout of 1 month for acitretin, 3 months for isotretinoin and 6 months for Botox injections. |
| | | | Inclusion: EBS, RDEB, Junctional non-Herlitz EB At least 1 month old. Male, or non pregnant female. Target EB wound between 10 to 50cm² and present for more than 21 days. Exclusion: Illness that may present safety risk or any current or previous malignancy. Washout of 2 months for immunotherapy or chemotherapy, 1 month for systemic or topical steroid, 1 month for any investigational product, or 7 days for systemic antibiotics. |
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| | | | Forty week pilot study; dual-centre, international, prospective, double-blind, randomized, placebo-controlled crossover study. Participants will be assigned to treat both feet with either topical sirolimus 2% ointment twice daily or placebo (vehicle-control) for 12 weeks, followed by a 4 week washout period, then re-treatment to both feet will occur by the cross-over intervention. |
| | | | Recruitment open |
| | | | Recruitment now closed |

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**Non Sponsored**

Topical sirolimus 2% ointment

EBS Keratin 5 and 14 mutation only

The hypothesis is that the mTOR inhibitor sirolimus will down regulate the translation of defective KRT5 protein in EBS, also reducing pain and itch. Assess foot function via the Foot Health Status Questionnaire; a validated tool to assess foot health. Assess safety and efficacy of IP.

**Inclusion:**

- EBS with a keratin 5 or 14 mutation on genotyping.
- At least 5 years old.
- Male, or non pregnant female.

**Exclusion:**

- Illness that may present safety risk or compliance issues.
- Washout of 1 month for acitretin, 3 months for isotretinoin and 6 months for Botox injections.

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**Recruitment open**

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**Scioderm, INC**

Topical cream containing 6% allantoin

EBS, RDEB, Junctional non-Herlitz EB

The exact mechanism of action of allantoin is still unknown. Testing has shown it to heal lesional skin and reduce blister outbreak. The literature suggests it works by multiple pathways, including reduction of inflammation, induction of growth of healthy tissue, stimulation of collagen and granulation tissue. It has also demonstrated antibacterial effects.

Assess safety and efficacy of IP.
Assess for closure of EB target wound.
Assess for change in EB lesional BSA, and pain and itch.

**Inclusion:**

- EBS, RDEB, Junctional non-Herlitz EB
- At least 1 month old.
- Male, or non pregnant female.
- Target EB wound between 10 to 50cm² and present for more than 21 days.

**Exclusion:**

- Illness that may present safety risk or any current or previous malignancy.
- Washout of 2 months for immunotherapy or chemotherapy, 1 month for systemic or topical steroid, 1 month for any investigational product, or 7 days for systemic antibiotics.

Twelve week, international, multicentre, randomised, double-blind, placebo-controlled phase III study. Participants will apply topical cream containing 6% allantoin or placebo (vehicle-control) daily to the entire body for 12 weeks. There is a 21 month open label extension follow up study.

**Recruitment now closed**
If you are aware of patients with EB that would make suitable participants and potentially benefit from any of these above trials, do not hesitate to have them call and discuss it further with one of the doctors at Premier Specialists.

**Professor Dedee Murrell**
Dermatology Trials Australia
Premier Specialists
The Church
17 Kensington Street
Kogarah, Sydney NSW 2217
Australia
Phone: +61 02 9598 5800
Mobile: +61 04 2258 1459
Email: premierspecnurse@gmail.com