

Preliminary Wound Healing by miR-302 Animal Trial Report Summary

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3. Sponsor: Mello Biotechnology, Inc.
4. Animal: 8-12 weeks old male albino house mice
5. Experimental Duration: Dec. 20, 2011 to Mar. 21, 2012
6. Active Ingredient: miR-302 CCE (Competent Cell Extract) and Precursor

7. Methods:

1) Animal Treatments (4 groups):

- ① Control with cream treated only
- ② Treated with miR-X CCE (plasmid without miR-302) in control cream
- ③ Treated with miR-302 CCE in control cream
- ④ Treated with miR-302 precursor in control cream.

2) Drug Preparations (4 groups):

- ① Antibiotic cream is commercially available in drug store as “Neosporin pain relieving cream”
- ② 200 µg CCE base per 1 ml antibiotic cream
- ③ 200 µg miR-302 CCE per 1 ml antibiotic cream
- ④ 200 µg miR-302 precursor per 1 ml antibiotic cream.

3) Open Wound Models:

Skin open wounds were generated by scalpel dissection to open up an approximately 0.5 cm² skin open wound on one side of the hind legs. Treatment was administered on open wounds, respectively, and then sealed by two drops of liquid bandage (Bandage, Rite Aid, USA). Drug applied every other day for three weeks.

8. Results:

- 1) miR-X CCE group showed no difference in wound healing compared to the control group, and we can still see the scars of these two groups till day19.
- 2) Both of miR-302 CCE and miR-302 precursor had greatly enhanced the speed of wound healing since day 8 to the end.
- 3) Group 1 (control) and group 2 (miR-X CCE) wound size decreased by 50%. From initial wound on Day6, while group 3 (miR-302 CCE) and group 4 (miR-302 precursor) wound size decreased by 50% from initial wound on Day4.
- 4) After 11 days of treatment, group 3 (miR-302 CCE) wound size decreased by 90%, while group 1 & 2 (control) wound size decreased by 60% by area. At day 11, group 3 wound size is 50% smaller than group 1 & 2.
- 5) In group 3 and group 4, the scars almost healed on day 19.

