**Proof of electrochemotherapy efficacy using intralesional cisplatin and intralesional or intravenous bleomycin in pre-clinical murine models**

What is limiting the usage of electrochemotherapy (ECT)? Many things, but notably…

* Long history of poorly controlled veterinary clinical studies
* Variable chemo administration considerations leaving us questioning which may be best
* Lack of treatment standardization and reporting

**Project aim**: Utilizing the innovative Life Pulse Biosciences technology, I will aim to characterize SQ/flank tumor responses (syngeneic [murine] and xenograft [canine origin] models) in the following arms:

1. Untreated
2. Reversible electroporation (RE) alone
3. IL cisplatin alone
4. IL cisplatin + RE
5. IL bleomycin alone
6. IL bleomycin + RE
7. IV bleomycin alone
8. IV bleomycin + RE

*\*\*Cisplatin and bleomycin dosing and RE will follow the established European standards*

**Expected outcomes**:

* No significant difference in tumor growth characteristics between untreated and RE alone tumors
* Consistent tumor responses and improved PFI in all chemo + RE treatment groups
* Determine which drug and/or route(s) of chemo are most efficacious

**Data sharing**: I would intend to deliver oral abstract presentation(s) and will submit for publication in an appropriate peer-reviewed *veterinary* journal.

**Significance**: This pre-clinical investigation will provide *unbiased* proof of ECT efficacy using the Life Pulse Biosciences ECT unit for macroscopic tumors. This preclinical investigation would be expected to be heavily referenced to justify chemo dosing strategy used in future companion animal ECT trials.

**Future aims**: I have more ideas involving murine models. I can share depending on sponsored research interest for this first pivotal model system.

Thank you for your time reviewing this unsolicited research proposal.

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**Notes with Jeff**

**Pr (tumor reduction > 30%) > 0.7 or 70%**

After first cohort of mice, eliminate groups 3, 5, and 7 if significance is achieved with corresponding ECT groups.

After first cohort, if group 2 growth is confirmed to be similar to group 1, we remove group 2.