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Dear Viktor:

I am writing to invite you to come to Chicago to give the Julian Tobias lecture on November 5, for the Department of Pharmacological and Physiological Sciences and the Committee on Neurobiology. We will provide your transportation, food and lodging, and there will be an honorarium. If you could plan to spend 2 days here, (at least) we'd love it. That would give students a chance to talk with you after they have heard your talk. In the past, the people invited to give the Julian Tobias lecture have given a rather general talk which has drawn a University-wide (or at least division-wide) audience. The topic of your talk is of course up to you, but I think one about the history of developmental neurobiology would be very appropriate. We can make more detailed arrangements about your visit at a later date.

I am enclosing the essay which Paul and I wrote for your book. I know you said you'd be delighted of we could explain retino-tectal connections. I'm not sure that we did, but I certainly have some more insights into both retino-tectal connections and limb innervation than I began with. In fact, in a way I think we nearly refuted our starting hypothesis. Not exactly, but almost. The two main points, that both ganglion cells and motoneurons recognize targets, and that multiple developmental mechanisms can influence patterns of connections in both systems, emerge intact. But our conclusions about what the developmental mechanisms are and their probable relative importance point out the differences in the two systems. After finishing the manuscript, I sat down and re-read the article which you published in 1962, Specificity in Neurogenesis, where you reached similar conslusions. You state there that one set of developmental mechanisms is involved with getting axons into the vicinity of their targets; another set is involved with them making specific connections. I think this is probably the major difference between retino-tectal connections and limb innervation. A lot of the important stuff for limb innervation involves active axon sorting in the limb plexus. This may be comparable to axonal sorting at the chiasm, or at the branch points to the thalamus, etc. Studies on retion-tectal connections generally involve interactions between axons close to their target site. The appropriate comparison would be between the r-t system and the axons that all travel in the same nerve, such as the sciatic, or the tibial and peroneal branches. It may be that competition and fiber-sorting play roles in getting calf muscles properly innervated. The chick thigh muscles are largely innervated by their private nerve trunks so that pathway selectivity is important for getting

these nerves distributed properly.

I want to re-work our essay to give you proper credit for the distinction between developmental mechanisms involved with pathways and those involved with targets. I'm embarassed that I didn't trace my intellectual foundations back to where they came from. I sent this version to Max to let him know that there is a real manuscript. I also told him I wanted to change this particular aspect of it. If you have other comments or suggestions for improvement, I'd like to hear them. Of course, I hope that you will like it, but don't be afraid of hurting my feelings if you don't. (I'll blame Paul for those spots!)

I have started to write my supernumerary limbs paper, at long last! Have you seen the two papers by Lance Jones and Landmesser in the May issue of Journal of Physiology? They are very nice.

I hope that you are surviving the heat in St. Louis. This summer has been quite unpleasant, even in the windy city.

Give my greetings to Joe and Helen. Take care.

Love,

Peggy