Was an Adenovirus Vaccine Challenge Trial Conducted on ICU patients at Wuhuan Jinyintan Hospital in Dec. 2019? Additional evidence to support Dr. Quay's finding.

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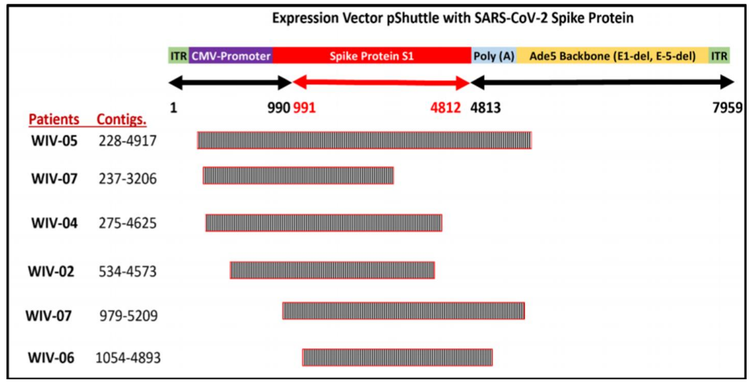
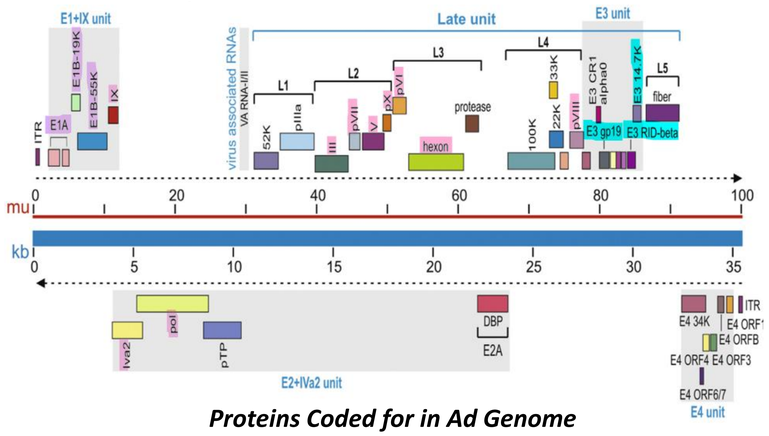
Background

- This study is an extension of Dr. Quay's previous research.
- Dr. Quay identified that the CoV-19 adenovirus vaccine DNA matched up with the initial CoV-19 patient's DNA samples from Jinyintan Hospital.
- Appropriate results of this experiment suggest a 'Vaccine Challenge Trial.'
- After Dr. Quay aligned the CoV-19 pShuttle-SN Vector's DNA to patient DNA samples, he found trustworthy matches.



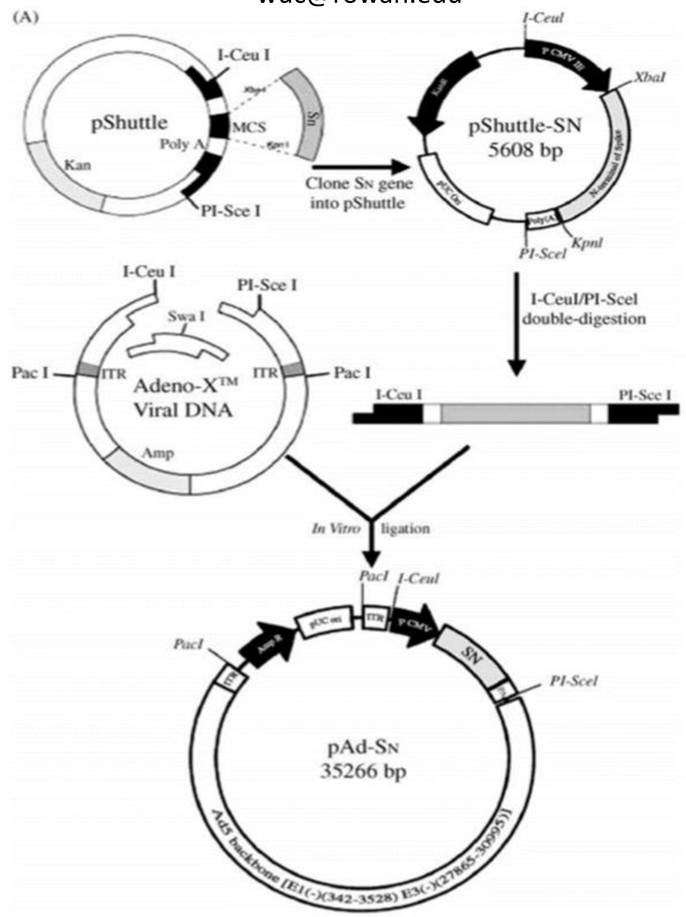
Patient-pShuttle-SN Vector Alignment by Dr. Quay

- Adenoviruses are extremely common, generally harmless respiratory viruses.
- CoV-19 Ad Vaccine is genetically engineered to contain the Spike Protein and to be harmless by removing Regions E1 and E3.
- E1 region initiates viral replication; E3 region suppresses the immunoresponse.



Proteins Coded for in Ad Genome

- Mass production of a vaccine is required for distribution, however, psuedoviral replication is forbidden once injected into the body. How can the vaccine be amplified for the benefit of distribution, without harming the recipient? The answer lies within the vaccine construction method used.



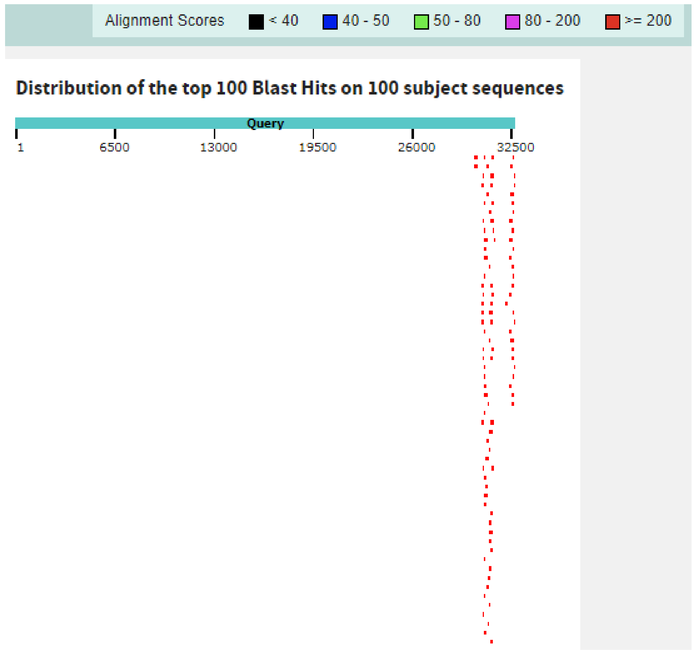
Vaccine Construction

- Transfect into HEK 293 cells which contain 11% Ad5 DNA sheered into chromosome 19. Cell line contains missing E1 and E3 regions (allows for replication).
- Following linearization, amplification, and purification, the final vaccine product is obtained, and is ready for injection.
- The Ad CoV19 vaccine contains ITR sequences, promoter (CMV), spike protein gene (SN), Poly A, and Ad5 backbone (E1, E3 deletion.)

CoV-19 Ad Vaccine Genome

Results

- Because Dr. Quay failed to align the Ad backbone (E1 and E3 deletion) DNA with the patient's DNA, we extended the study.
- The Ad backbone's DNA was aligned with the same initial CoV-19 infected patients Dr. Quay studied, and significant matches were found.



Patient-Ad5 Backbone Line Up (SRX7703884)

- This is one of the many patient DNA line ups that showed significant matches. This patient was also shown to have an exceptional pShuttle line up done by Dr. Quay.
- Because the DNA sequences line up well in both studies (as did several other patients), this suggests a challenge trial was conducted.

Conclusion

- Qr. Quay revealed the initial CoV-19 patients contained the pShuttle vector, suggesting these patients were injected with the adenoviral CoV-19 vaccine prior.
- Although the pShuttle vector contains most of the vaccine's DNA, one crucial portion was missing – the Ad5 backbone (E1, E3 deletion).
- We aligned the backbone to the same patients' DNA and found promising matches, ultimately suggesting a challenge trial.

Future Research

- Future research involves using this method as a possible vaccine candidate for H7N9 influenza antibody introduction.
- More information regarding this vaccine's long term side effects is necessary.

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