An Insight into Theoretical Analysis of Gene Therapy using Coq Theorem Prover[CTP] – A Simple Computing Framework on -[Molecular/Bio-molecular Systems,Bio-informatics + Spectroscopy] to Probe Gene Therapy in the context of Group Theory.

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#### [I] Introduction & Inspiration:

http://vixra.org/abs/1901.0177 && http://vixra.org/abs/1901.0027

http://vixra.org/abs/1901.0157 && http://vixra.org/abs/1901.0338

http://vixra.org/abs/1901.0366 && http://vixra.org/abs/1901.0377

http://vixra.org/abs/1901.0445 && http://vixra.org/abs/1812.0421

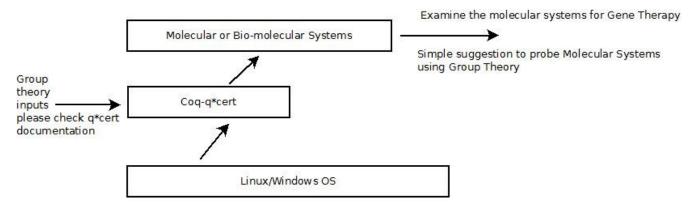
Actual implementation will vary. Please read all the references and satisfy yourself. Think in a different way always.

We are interested in focusing on group theory and abstract algebra applied to molecular systems biology via Coq Theorem Prover[CTP].

https://www.researchgate.net/publication/51241646\_Review\_and\_application\_of\_group\_theory\_t o molecular systems biology.

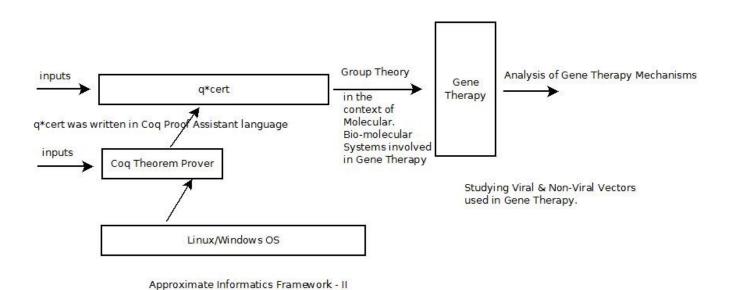
https://cosmosmagazine.com/physics/woman-who-invented-abstract-algebra.

## [II] Coq based Informatics Framework:

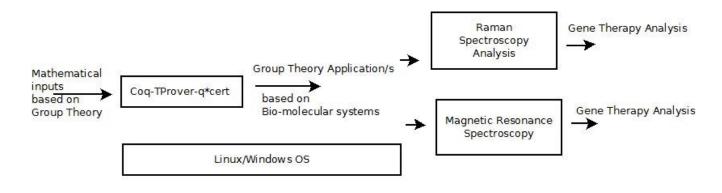


Approximate Informatics Framework - I

**Figure I – Informatics Framework** 



**Figure II – Informatics Framework** 



Approximate Informatics Framework - III

**Figure III – Informatics Framework** 

#### [IV] Conclusion/s with Future Trends:

Complex Systems Design-Implementation-Testing was/is presented that could be useful towards better Gene Therapy.Based on our previous **Patents**,we have obtained our inspiration to work on these novel methods.**Patents information**: (1).HK PATENT NUMBER:HK1150377 in 2011;(2). EU PATENT NUMBER:S2012/0145 in 2014. [CHINA-ISRAEL NANOSCIENCE R&D PROGRAM]

CoqTP+q\*cert + Group Theory + Molecular Systems + Spectroscopy => could give rise to better theoretical investigations involving Gene Therapy Mechanisms with both Viral/Non-Viral Vectors.

# [CTP +Ocaml+Biocaml +Java+Scala Informatics Platform -> Investigate & Probe Gene Therapies From Both Hardware/Software Point of View involving Mathematics.]

[Rigorous Testing in Progress ]

### [V] Acknowledgment/s:

Thanks to all who made this happen in my life.Non-Profit Academic R&D.

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Thanks for reading my Short Communication.
THE END/Dr.Nirmal.