A. Questions

1. What are the molecular rules of communication?
2. What is the role of molecular signals?
3. What are the signal receptor enzymes?
4. What is the role of translation?
5. What are the mechanisms for modifying translation?
6. What is the role for cell assembly?
7. What is the life of a cell?

B. Experimental Approaches

1. In vivo
   - Genetics: a tool to understand function
   - Mutations
   - Nematodes - C. elegans
   - E. coli - E. coli
   - mitor cell
   - Knock out
   - Knock down
   - Behavior
     - Normal
     - No
     - Negate

2. In vitro
   - Obtain populations of each kind of cell (e.g., neurons, other cells...)
   - Differentiate functional cell A, population
1) Principles
2) Kinds of receptors
3) Kinds of signal-receptor interaction
4) Kinds of all
5) Kinds of signal translation of cell
6) Mechanism for propagating "
7) Rules for cell-cell assembly

Approaches
1) In vitro
   1) Methods for separating populations of cells
     a) Deparaffination processes
   2) Others
2) In vivo
   Genetics as tool - correlate function and molecule
1) Adler = Exilibrium
2) Feldhund = Pfizompetit = Licht
3) Brenne (Myself) Nematode

3) Benzol = Drosophila

4) Myel = Tumor Cellular
   1) Diff. Segn.
   2) Gen. Segn.
   3) Braden Marken

5) Ste = Echinum

6) Lupin = Peta Beigl

7) Hyazinthus = Effect and of morph.
   a) E. clin.
   b) Helm cells

8) Rezeptor Peta = Changen
   1) Affentodler
1. Strategy

2. Objectives
   1. Reach foundation level.
   1. Reduce cost of production.
   2. Operation

3. What is the speed of propagation for a given input of adsorption?
   a) Diffusion < 15,000
   b) Convection < 15,000
   c) Channel < 1,000,000
   d) Humm < 2,000,000

4. Diffusion (~10^-5 to 10^-6 km/s)

5. Osmosis is interested in problem of diffusion, study development.

6. More info needed for specific task.
Basic problem: Discuss the rule for continuing a molecular change.

1. How likely? How long on average?

Probability of reversed rule, various figures.

2. Predict the result of the next step.

3. Predict the result of the next step.

Data on molecular changes.
1) Network system:
   -  
   -  

2) Selective adaptation
   - Gene amplification
   - Select cell population
   -  
   - Select an set of suppressors
1. Newtaka
2. Dracfil

2. Embryology
   1. Useful Developmental Aspects
   2. Restrictions

3. Cell Culture
   1. Cell Types Differentiation Nutrition
   2. Tumor cells/ differentiation function

4. Cell-free Systems
   Testing for ideal components
Strategy Plan

1. Genesis are set for decent completion.
   - Preliminary Constitutional checks is 2 Y0K
   - 30 minutes.
1. System
   1. Regeneration
      1. Mammalian complex tissue, developing
   2. Ectoderm
   3. Endoderm of scale

2. Tool and Seal Design - Quantitative vs. Design
   1. Genetic
      1. Gene expression
      2. Gene activation
      3. Gene regulation
      4. Genetic influence
   2. Biodiversity
      1. Homogeneity
         1. Similar shape
         2. Cell membranes
      2. Embryonic Development
         1. Tissue culture. Age dependency
         2. Adult tissue
         3. Homogenate
         4. Germination
         5. Differentiation
   3. Passive culture
      1. Tissue degeneration
Problems in cell

1) Regulation of differentiation
2) Differentiation of nervous system
3) Proliferation
4) Expression

3) Problems in cell - Stoffel
   1) DNP
   2) sRNA
   3) CMT
   4) hnRNA

2) Xenopus normal adult
   Xenopus adult 17 months

3) SKM, hMAR
   AAT5RMA

4) Lacking T2

5) Complete bypass
   RNA polymerase
   Transfection - inducible - inducible

6) Zucchini
   scle
   oxel

7) Pair...
6) Blindness + Developmental potentials

7) Summary

1) Differentiate cell types
   a) Astrocytes
   b) Oligodendrocytes
   c) Microglia
   d) Vascular
   e) Neural

2) Neurological - Mice
2. Obj. 7. Specific s. of the task, the logic of the
3. Def. of specific s. of the task, logic of the
4. Def. of specific s. of the task, logic of the
5. For operations
6. Rules for construction of brain
7. Genetic program
8. Different or equal
9. Evolution of new genetic program
10. Analyze genetic information and data:
   a) DEC 2000
   b) CADD 75,000
   c) Chlorine 75,000
   d) Marijuana 2,000,000

   Duplication
   a) 500,000,000 cells/gm tissue
   b) Tumor growth

What is the probability that this plant will be commercial?
1. Genetic code
2. Cellular metabolism - Composting levels
3. Predict length of commercial life
4. Age of gestation vs new born
   1. Length vs age of infants

5. Predict instrument site in angiography
   (sequence of names)
   2. How many times are embryos
   shown in micrographs
   3. Additional factors to consider

6. Problem is to...

1. Biochemical and cell-free systems are not
   good indicators

2. Tuber Cultures
   1. Cell types - Different Roles
   2. Tumors
   3. Cure
   4. Diagnosis
   5. More...

3. Embryology