AGENDA FOR ROUND TABLE
EVALUATION OF CRITERIA FOR TAXONOMY*

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A. Difficulty with many of the current procedures

1. A large number of criteria have been used but were
carried on in a different manner by investigators
over the past years.
2. Difficulty of reproducing some media.
3. Limits for criteria are not sharp enough. Therefore,
interpretation of the test varies.
4. Absence of many type cultures or neotypes.
5. Changes in type cultures.
6. Variability of cultures.

   a. History of handling
   b. Genetic variability
   c. Cultural variability

7. No uniformity among investigators for types and
   numbers of differences in creating new species
   (Lumpers vs. Splitters)

B. Evaluation of criteria

1. Standards for criteria

   Are they sufficiently clear so that the results can
   be interpreted uniformly by investigators in labora-
   tories all over the world?
   Are the constituents of the media widely available?
   Can the tests be standardized?
   Are the reactions stable enough so that they do
   not change with slight variations in environmental
   and cultural conditions or variations of the micro-
   organism?
2. Discussions of criteria

Morphological characteristics
- Colony
- Mycelia
- Sporophore structure
- Method of spore formation
- Spore morphology

Color characteristics
- Soluble pigments
- Color of mycelium
- Spore and aerial mycelium

Growth response to temperature

Metabolic characteristics
- Hydrogen sulfide production
- Reduction of nitrates
- Gelatin liquefaction
- Milk peptonization
- Carbohydrate utilization
- Nitrogen utilization
- Production of antibiotics
- Sensitivity to antibiotics

Serology

Phage specificity

C. Speciation

D. Nomenclature

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