CORRESPONDENCE

This department is for the publication of informal communications that are of interest because they are informative and stimulating, and for the discussion of controversial matters.

Polar Concept in Leprosy

To THE EDITOR:

I should be grateful for the opportunity to supplement, by some personal recollections, your recent review of the history of leprology (this JOURNAL 41:2, 1973) in regard to immunopathology.

Hansen laid a good foundation for the truly biological binary classification of leprosy in 1895, and Jadassohn buttressed it in 1898 by his description of tuberculoid histologic patterns in leprosy, but in 1931 most leprologists were still committed to a largely anatomical classification, as exemplified in the cutaneous-neural system adopted at the Leonard Wood Memorial Congress in that year.

In 1938, F. E. Rabello, Jr. published (in Portuguese) in the ARQUIVOS DE HIGIENE (8:57-76) the positive view that fully developed cases of lepromatous leprosy, on the one hand, and tuberculoid, on the other, stand at opposite poles biologically. Said, he, "there are two exactly opposed forms, which we designate 'polar': the lepromatous, and the tuberculoid." The same concept was developed by him in the same year in an article in the BULLETIN SOCIETE FRANCAISE DE DERMATOLOGIE (9:23-9827, 1938). Nevertheless, at the Cairo Congress in that year, the "polar" concept was resisted by Wade and Klingmuller, and rejected by the delegates.

Despite subsequent support of Rabello's proposal by Pardo-Castello and Tiant and by W. Buengeler in 1943, and by Tildén and me in 1944, the Havana Congress convened in 1948 in an atmosphere generally hostile to Rabello's polar concept. The English and Indian leprologists were particularly cool toward it. The chairman of the committee on classification was Vicente Pardo-Castello, and the co-secretaries were Jose M. M. Fernandez of Argentina and the undersigned, of the U.S. They were all proponents of Rabello's view. The report, as adopted, read in part: "...the classical division of leprosy into two types, "polar" (Rabello, 1938) in their essential characteristics ... be recognized and maintained, and that they be designated lepromatous and tuberculoid ..."

Rabello's polar concept is gaining a new dimension due to its ample confirmation in terms of immunopathological connotations. It is then clear to whom belongs the priority for the polar concept, whichever the name used, as "polar system" or "dichotomy."

The Latin-American leprologists Souza Lima, Alayon, and Rabello (1941-1943) had introduced a new group in Latapí's sense (as opposed to type) of cases which they designated incarcetica. It was pointed out that the symbol for this group, "I," would have to be "U" if we transliterated the word into English as "uncharacteristic." It was I who proposed at the Havana Congress that we substitute the approximate translation of "indeterminate," to preserve the letter designation. The committee and the Congress accepted this suggestion, along with the "polar" concept as proposed by Rabello.

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[Comment: We are pleased to have this historical clarification from the memory of Dr. Arnold who was an active participant in the events described; particularly so since the early significant publications of Dr. F. E. Rabello, Jr. are sometimes lost sight of by English language readers since these works were in Portuguese and French. Dr. Rabello's perceptiveness and persistence of conviction clearly played a major role in laying that groundwork of basic understanding on which later advances such as Lowe's elaboration on the immunologic dichotomy which
led toward a recognition of the many, now
recognized variations in the expression of
humoral antibody immunity versus cell-
mediated immunity in the polar type. It is
as an old Chinese saying has it, "An earlier
generation blazes a trail on which a later
generation follows."—O.K.S.

Lepromin Nomenclature

To the Editor:
The availability of Mycobacterium lepraee-
fected armadillo tissue has prompted sev-
eral field studies to assess the suitability of
armadillo-derived lepromin as a substitute
for classic lepromin derived from human tis-
sues. For more than a year, we have been
conducting such a study in cooperation with
Gulf South Research Institute (New Iberia,
Louisiana), the Armed Forces Institute of
Pathology (Washington, D.C.), and the In-
stitut Medical Evangelique (Kimpese,
Zaire). To distinguish lepromins of human
and armadillo origin we designated them,
respectively, lepromin-H and lepromin-A. In
that in a WHO-sponsored study, the terms
"armadin" and "tatin" have been sug-
gested for lepromin of armadillo origin. Al-
though the terms "armadin" and "tatin" give
tribute to two languages—Spanish and the
Gurani Indian language, respectively—
of the native land of the armadillo, neither
term seems to me appropriate.
The term "lepromin" has been in use for
nearly a half century, and it and derived
words such as "leprolin" bear an established
connotation to leprosy workers of virtually
all nationalities. The words "lepromin," 
"leprosy" and "M. leprae" are etymologically-
related and clearly express an association
among the names for the skin testing rea-
gent, the disease, the specific etiologic
agent, and component of the skin test re-
agent provoking the specific skin reaction.
The proposed terms "armadin" or "tatin"
are in no way etymologically related to "lep-
rocy" or to the specific nature of the skin
testing reagent prepared from M. lepraee in-
fected armadillos. We have noted skin re-
actions in man to extracts of normal ar-
madillo tissues, and find the terms "armadin" or "tatin" more appropriate, but
perhaps unnecessary for preparations of
such normal tissues.

Skin test reagents have now been pre-
pared from the M. lepraee-infected mouse
(\(\text{M}+\)) and chipmunk (\(\text{C}+\)) in addition to the ar-
madillo. The terminology for all the possible
future sources of lepromin could prove con-
fusing indeed, if a source-oriented rather
than specificity-oriented term is chosen in
each instance.

Using the various lepromins studied thus
far as examples, I suggest that a nomencla-
ture based on the following designations be
considered:

<table>
<thead>
<tr>
<th>Source</th>
<th>Nomenclature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human</td>
<td>lepromin-H</td>
</tr>
<tr>
<td>Armadillo</td>
<td>lepromin-A</td>
</tr>
<tr>
<td>Mouse</td>
<td>lepromin-M</td>
</tr>
<tr>
<td>Chipmunk</td>
<td>lepromin-C</td>
</tr>
</tbody>
</table>

These designations could be understood to
refer to "integral" lepromin preparations of
the Mitsuda-Hayashi-Wade type. If other
antigens, such as the Dharmendra type, are
to be considered, notations such as H-D or
A-D may be employed. The term "leprolin"
could be substituted for "lepromin" where
applicable.

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