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<th>APPLICATION NO.</th>
<th>FILING DATE</th>
<th>FIRST NAMED INVENTOR</th>
<th>ATTORNEY DOCKET NO.</th>
<th>CONFIRMATION NO.</th>
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<td>09/922,631</td>
<td>08/06/2001</td>
<td>Richard Apodaca</td>
<td>ORT-1473</td>
<td>3570</td>
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<td>27777</td>
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DATE MAILED: 06/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.
Office Action Summary

<table>
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<tr>
<th>Application No.</th>
<th>09/922,631</th>
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<tr>
<td>Applicant(s)</td>
<td>APODACA ET AL.</td>
</tr>
<tr>
<td>Examiner</td>
<td>Kamal A. Saeed</td>
</tr>
<tr>
<td>Art Unit</td>
<td>1626</td>
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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☑ Responsive to communication(s) filed on 03/18/2005.
2a) ☐ This action is FINAL. 2b) ☑ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☑ Claim(s) 91-115 is/are pending in the application.
4a) Of the above claim(s) ______ is/are withdrawn from consideration.
5) ☑ Claim(s) ______ is/are allowed.
6) ☑ Claim(s) 102,103 and 105-110 is/are rejected.
7) ☑ Claim(s) 104 and 111-114 is/are objected to.
8) ☐ Claim(s) ______ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on ______ is/are: a) ☑ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All  b) ☑ Some * c) ☐ None of:
   1. ☑ Certified copies of the priority documents have been received.
   2. ☑ Certified copies of the priority documents have been received in Application No. ______.
   3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☑ Notice of References Cited (PTO-892)
2) ☐ Notice of Drafts person's Patent Drawing Review (PTO-948)
3) ☑ Information Disclosure Statement(s) (PTO-1449 or PTO/IB/08)
   Paper No(s)/Mail Date ______.
4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date ______.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: ______.
DETAILED ACTION

Claims 1-90 have been cancelled and claims 91-115 have been added. Therefore claims 91-115 are currently pending in this application. Since the compounds were found allowable the method of use claims have been rejoined.

Priority

This application claims the benefit of US Provisional Application Serial No. 60/223,768 filed August 08, 2000.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 102, 103, 105-110 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for methods for treating specific diseases such as migraine, asthma, dementia, epilepsy , does not reasonably provide enablement all diseases affected by inhibition if histamine H3 receptor activity. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims.

In In re Wands, 8 USPQ2d 1400 (1988), factors to be considered in determining whether a disclosure meets the enablement requirement of 35 U.S.C. § 112, first paragraph, have been described. They are:

1. the nature of the invention,
2. the state of the prior art,
3. the predictability or lack thereof in the art,
4. the amount of direction or guidance present,
5. the presence or absence of working examples,
6. the breadth of the claims,
7. the quantity of experimentation needed, and
8. the level of the skill in the art.

The Nature of the Invention

The nature of the invention in claims 102, 103, 105-110, is a method of inhibiting histamine H₃ receptor to treat diseases affected by these receptors.

The State of the Prior Art

The histamine H₃ receptor, belongs to a superfamily of G-protein-coupled receptors and they occur in histaminergic neurons and non-histaminergic nerve endings (See British Journal of Pharmacology 2001, 132, 1665-1672. Several diseases are affected by these receptors. The inhibition of this could have agonistic, partial agonistic or antagonistic effect.

The level of skill in the art

The level of skill in the art is high. However, due to the unpredictability in the pharmaceutical art, it is noted that each embodiment of the invention is required to be individually assessed for physiological activity by in vitro and in vivo screening to determine which compounds exhibit the desired pharmacological activity and which diseases would benefit from this activity.

The predictability or lack thereof in the art

Because of high level of unpredictability associated with "histamine H₃ receptor" of certain diseases such as Alzheimer's, a greater amount of evidentiary support is needed to fully satisfy the requirement of 35 U.S.C 112, first paragraph. It is noted that pharmaceutical art is unpredictable, requiring each embodiment to be individually assessed for physiological activity.
In re Fisher, 427 F.2d 833, 166USPQ 18 (CCPA 1970) indicates that the more unpredictable an area is, the more specific enablement is necessary in order to satisfy the statute. The nature of pharmaceutical arts is that it involves screening \textit{in vitro} and \textit{in vivo} to determine which compounds exhibit the desired pharmacological activities. There is no absolute predictability even in view of the seemingly high level of skill in the art. The existence of these obstacles establishes that the contemporary knowledge in the art would prevent one of ordinary skill in the art from accepting any therapeutic regimen on its face.

\textit{The amount of direction or guidance present}

The specification discloses methods of treating diseases such as Alzheimer’s disease, using the compounds described in the specification. The compounds which are disclosed in the specification, which have data regarding some neurological disorders (pages 135-137), have no pharmacological data regarding all diseases affected by histamine H\textsubscript{3} receptor. The specification is short of any data (animal models, in vitro, or in vivo testing) in regards to the prevention of said diseases.

\textit{The presence or absence of working examples}

A disclosure should contain representative examples, which provide reasonable assurance to one skilled in the art that compounds fall within the scope of a claim will possess the alleged activity. See \textit{In re Riat et al.} (CCPA 1964) 327 F2d 685, 140USPQ 471; \textit{In re Barr et al.} (CCPA 1971) 444 F 2d 349, 151 USPQ 724. The instant specification at most only provide one example for treating diseases such as Alzheimer’s’. No examples have been set forth describing the prevention of said diseases.
The breadth of the claims

As defined the claims read on all diseases affected by histamine H₃ receptor diseases such as Alzheimer’s disease, learning deficit, memory loss, attention deficit, memory loss, Parkinson’s disease and Huntington’s disease which is broader than the enabling disclosure.

The quantity of experimentation needed

Based on the unpredictable nature of the invention and the state of the prior art and the breadth of the claims, one of ordinary skill in the art would be burdened with undue “experimentation study” to determine whether the claimed compounds would prevent diseases such as Alzheimer’s. Genentech Inc. v. Novo Nordisk A/S (CA FC) 42 USPQ2d 1001, states that “a patent is not a hunting license. It is not a reward for search, but compensation for its successful conclusion” and “[p]atent protection is granted in return for an enabling disclosure of an invention, not for vague intimations of general ideas that may or may not be workable”.

Therefore, in view of the Wands factors and In re Fisher (CCPA 1970) discussed above, to practice the claimed invention herein, a person of skill in the art would have to engage in undue experimentation to test which compounds would prevent for example Parkinson’s disease by the method encompassed in the instant claims, with no assurance of success.

It is suggested to include the diseases recited in claim 104 and 113 into the claims reciting only the inhibition “histamine H₃ receptor”.

Response to Amendment

Applicant’s Amendments filed on March 18, 2005, have been considered and are found sufficient to overcome the objection of claim 91-100 (currently new) as set forth in the Office Action mailed on 09 September 2004. Therefore, claims 91-101 and 115 are allowable.
Objections

Claims 104 and 111-114 are objected to for depending on a rejected base claim.

Telephone Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kamal Saeed whose telephone number is (703) 308-4592. The examiner can normally be reached on Monday-Friday from 8:00 AM – 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Mr. Joseph K. McKane, can be reached at (703) 308 4537. The unofficial fax phone for this group are (703) 308-4556 or 305-3592.

When filing a FAX in Technology Center 1600, please indicate the Header (upper right) “Official” for papers that are to be entered into the file, and “Unofficial” for draft documents and other communications with the PTO that are not for entry into the file of the application. This will expedite processing of your papers.

Communication via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signiture, may be used by applicant and should be addressed to [joseph.mckane@uspto.gov]. All Internet e-mail communications will be made of record in the application file. PTO employees will not communicate with applicant via Internet e-mail where sensitive data will be exchanged or where there exists a possibility that sensitive data could be identified unless there is of record an express waiver of the confidentiality requirements under 35 U.S.C. 122 by the applicant. See the Interim Internet Usage Policy published by the Patent and Trademark Office Official Gazette on February 25, 1997 at 1195 OG 89.
Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist, whose telephone number is (703) 308-2286.

KAMAL A. SAEED, PH.D.
PRIMARY EXAMINER

Kamal Saeed, Ph.D.
Patent Examiner, AU 1626