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January 9, 2018

VIA ECF AND FEDERAL EXPRESS

Honorable Judge Claire C. Cecchi
United States District Court
District of New Jersey
Martin Luther King Building & U.S. Courthouse
50 Walnut Street
Newark, NJ 07101

**In Re: Proton-Pump Inhibitor Products Liability Litigation (II)
2:17-md-2789 (CCC)(MF) (MDL 2789)**

Dear Judge Cecchi,

On behalf of the Plaintiffs' Steering Committee and pursuant to Case Management Order No. 6, we are writing to advise the Court of unresolved discovery disputes between the AstraZeneca Defendants (hereafter "AstraZeneca") and Plaintiffs pertaining to the use of search terms in the document review and production process, and the PSC's first set of document requests. As instructed by the Court at the last case management conference, the parties have continued to confer on these issues. While the parties were able to reach agreement on some issues, other disputes require a ruling from the Court to avoid further delays in document productions.¹ Presently, the discovery disputes fall into two categories: (a) disagreements as to search terms to be used by AstraZeneca to cull certain electronically stored information, and (b) AstraZeneca's refusal to produce categories of documents.

A. Search Terms

The background concerning the PSC and AstraZeneca's negotiations relating to search terms is set forth in our December 14, 2017 letter to the Court, which we hereby incorporate by reference. Presently, Plaintiffs are proposing a total of 347 search terms, divided into the following categories: Drug Names, including potential misspellings (42 terms); Names and Numbers of Clinical Trials, Protocols, NDAs, INDs, and Internal Teams Relating to the Products (47 terms); Medical and Scientific Terms (75 terms); Industry and Trade Terms relating to the marketing and regulation of the products (37 terms); and Author and Journal Names relating to

¹ The discovery disputes in this letter are being raised with respect to AstraZeneca only. Indeed, the PSC and the Takeda and Pfizer defendants have already been able to reach agreement on many of the disputes described herein, and Plaintiffs believe the most constructive approach is to deal with each defendant separately.

medical literature about PPIs (146 terms). *See* Plaintiffs' Proposed Search Term List (annexed hereto as Exhibit A).

AstraZeneca has requested additional time to test some of the search terms proposed by the PSC, thus, disputes concerning individual terms are not yet ripe. However, the parties agree that guidance from the Court regarding general disagreements will help us reach agreement or at least reduce the number of disputes with respect to search terms.

1. Use of "Stand-Alone" Search Terms. Plaintiffs have proposed the use of "stand-alone" search terms, primarily with respect to the various product names at issue, as well as the last names of researchers who have published articles in medical and scientific journals discussing PPI products. AstraZeneca generally opposes the inclusion of stand-alone search terms. Instead, they seek to modify such searches to limit the results. For example, one of the terms proposed by the PSC is "Nexium." If Nexium is used as a stand-alone search term for a given custodian's emails, the search results will include every email that employee sent or received that mentions Nexium. By contrast, AstraZeneca would modify the search to include the word, "kidney." Thus, under AstraZeneca's approach that search would only yield an employee's emails that mention both "Nexium" and "kidney" in its text. Plaintiffs contend the latter approach is too restrictive and that stand-alone search terms are needed.² AstraZeneca argues that stand-alone terms are too burdensome because they are overly-broad and will include documents that are not relevant to the claims and defenses in this litigation. AstraZeneca, however, has provided no basis for this contention, nor have they provided any examples of the types of documents such searches would produce that they purport to be "irrelevant."

In the PSC's experience, stand-alone search terms are commonly utilized. *See, e.g.,* AbbVie Defendant Search Terms, *In re: Testosterone Replacement Therapy Prods. Liab. Litig.*, MDL No. 2545 (N.D. Ill.) (annexed hereto as Exhibit B); Defendant Search Terms, *In re Benicar (Olmesartan) Prods. Liab. Litig.*, MDL No. 2606 (D. N.J.). Such an approach balances the need for identification of potentially relevant documents with the burden involved with a document-by-document review of a given custodian's entire file. It is important to keep in mind that search terms are used to identify those documents within a collection set that will be reviewed for production. A positive search term "hit" does not equate to production of that document. All it means is that the document will be reviewed to assess whether it needs to be produced (*e.g.*, is it responsive and relevant, and whether there a privilege that entitles the producing party to withhold it from production).

Further, with respect to burden, it is important to note that stand-alone search terms would not be run across the files of all employees and all databases at AstraZeneca, in which case, one might expect to receive many documents that are not truly relevant to the claims and defenses at issue (*e.g.*, documents relating to manufacturing or packaging design). Indeed, such terms would not even be run against all employees and databases that have PPI-related

² Plaintiffs have agreed that search terms that include more commonly used words and thus, may result in flagging a large number of documents that involve other products, modifiers may be appropriate. *See, e.g.,* Exhibit A, Search terms under the category "Medical/Scientific Terms."

information and communications. Instead, the search terms at issue will be run across a limited number of custodians and discreet document collections that Plaintiffs or AstraZeneca ***have identified as having significant involvement with the products at issue.***³ For such document sources, Plaintiffs contend that it is better to err on the side of inclusiveness, as one would expect that the majority of the documents identified will be relevant to the issues in this litigation. To the extent that a stand-alone search term yields results that include a significant amount of non-relevant information, once verified, the parties can work together to refine the search for a given custodian or non-custodial source to avoid such a result.⁴

2. Disagreement Regarding the Types of Search Terms. AstraZeneca also largely rejects the inclusion of any search terms that do not relate to the product name (or compound name), NDA/IND numbers, or specific injuries in this litigation, as narrowly defined by AstraZeneca. Thus, while AstraZeneca has proposed a limited number of injury terms, Plaintiffs have proposed additional terms that relate to medical conditions and symptoms that relate to the kidney injuries at issue in this litigation. More importantly, AstraZeneca has rejected terms designed to identify documents and emails relating to the following topics for Nexium and Prilosec, including but not limited to: branding and promotional plans; communications with consultants and thought leaders in the medical community; product advertising; and communications with sales representatives and prescribing physicians.

Such topics are highly relevant to the claims and defenses at issue and a broader set of search terms is needed to capture such information. As the Court is aware, Plaintiffs assert that AstraZeneca knew or should have known of the risks of the injuries alleged long before they were publicly acknowledged (to the extent they have been publicly acknowledged at all) and that through their labeling, marketing, and promotion, misrepresented or omitted discussion of safety issues. Further, competitive and regulatory concerns often impact decisions to conduct further testing and/or to amend product labeling and marketing materials. Such information is highly relevant and internal discussions of these subjects (as they relate to Nexium, Prilosec, or other PPIs), whether contained in emails, memoranda, or presentations, should be produced. Notably, AstraZeneca does not generally object to producing documents relating to the topics listed above. However, AstraZeneca is only willing to produce such documents *to the extent they exist in discreet document collections or can be found using the narrow set of search terms they have proposed.* By contrast, AstraZeneca refuses to add search terms that are specifically designed to identify internal email discussions and documents relating to such topics. For example, AstraZeneca has agreed to produce promotional materials used with prescribing physicians from a database they maintain that houses such documents. However, under their proposed search terms, we would not receive any emails discussing Nexium or Prilosec promotional material, unless they also happen to contain one of the precise medical terms delimited by AstraZeneca.

³ While the parties have not yet agreed on the number of custodians whose files will be produced, AstraZeneca has, to date, disclosed the identity of 46 employees or former employees which it has determined had significant involvement with the products at issue.

⁴ In other litigations, Defendants have provided Plaintiffs with analyses that showed the total number of documents returned from a search term and, based on a sample review of such documents, an estimated number of non-relevant documents. In such cases, the parties agreed to modifiers that would help eliminate such results.

Such gamesmanship should not be permitted. Search terms should be designed to capture relevant documents or documents that will lead to relevant information.

It is important to note that running additional search terms does not require AstraZeneca to collect additional documents. As communicated to Plaintiffs by AstraZeneca's counsel, once AstraZeneca has identified a custodian likely to have relevant information, they are collecting all of his or her emails and documents, which will be analyzed using the search terms that are agreed to or ordered by this Court. Undoubtedly, use of a broader set of terms will result in more documents identified as being responsive and therefore, increase the document review time for AstraZeneca. However, as noted above, these witnesses are expected to have relevant documents. The review of this limited set of documents is far less burdensome than AstraZeneca having to manually review the entirety of a custodian's file, which is what would be required absent the use of search terms. By contrast, the narrow approach proposed by AstraZeneca will severely limit the document production and prejudice Plaintiffs.

3. Application of Search Terms to Discreet Document Collections. Additionally, Plaintiffs have requested that where a custodian or shared workspace has a folder (electronic or paper) that is specifically devoted to the products at issue—*e.g.*, if a scientist at AstraZeneca has an Outlook folder named “Nexium Studies 2017”—the materials contained in such folders should be reviewed for production by AstraZeneca without utilizing search terms at all. Otherwise, a discreet collection of documents clearly related to the products at issue might be culled unnecessarily and to the detriment of Plaintiffs.

For the foregoing reasons, this Court should order AstraZeneca to utilize the stand-alone search terms requested by Plaintiffs and to include additional terms that go beyond specific injury names.⁵ Additionally, we request that the Court instruct AstraZeneca not to utilize search terms on document collections that relate solely to the specific products at issue.

B. Unreasonable Limitations on Specific Document Requests

As the Court is aware, Plaintiffs served AstraZeneca with their First Request for Production of Documents on September 26, 2017. Plaintiffs subsequently granted AstraZeneca a time extension for their response. On November 9, 2017, AstraZeneca provided their responses to our requests. To date, there are a number of document requests that remain in dispute. With respect to some of those requests, the parties will continue to meet and confer. However, there are certain differences that we have agreed cannot be resolved without a decision from the Court.

1. Marketing and promotional materials, physician education materials, and sales training materials relating to Nexium and Prilosec. AstraZeneca does not object to producing such materials, however, it is limiting its production to only *final* versions of such documents. Plaintiffs have requested draft versions, as well as final versions, so that we can track changes that were proposed, considered, and/or rejected by AstraZeneca before disseminating such materials to its sales representatives, patients, consumers, and the medical community. As noted

⁵ Plaintiffs believe that with such an Order, the parties would quickly resolve their disputes related to search terms and that document productions will be expedited.

above, plaintiffs allege failure to warn claims, which can include misrepresentations and omissions. Thus, draft documents are relevant.

2. Information relating to prescribing physicians generally. These requests pertain to focus groups and other meetings with consulting or prescribing physicians, as well as to any concerns or complaints reported to AstraZeneca by physicians relating to Nexium or Prilosec. The latter is stored in various databases maintained by AstraZeneca while the former may be present in various shared workspaces and/or custodial files. AstraZeneca refuses to produce such information unless it pertains to the physician of an individual plaintiff in this litigation. Simply stated, in AstraZeneca's view, if a physician complains to AstraZeneca they are concerned that Nexium may be causing kidney problems, the complaint as well as AstraZeneca's response to that complaint is not relevant unless it was made by the prescribing physician of a plaintiff that has filed suit. Plaintiffs contend this information is relevant to notice, as well as our negligence claims, whether it was derived from a claimant's prescribing physician or the medical community generally.

3. Communications, memoranda, and analyses sent to or received from PhRMA pertaining to PPI products. AstraZeneca is a member of a lobbying group, Pharmaceutical Research and Manufacturers Association of America (PhRMA). In Plaintiffs' experience, this organization frequently communicates with the FDA and other government bodies concerning public policy and public safety concerns, including communications about specific products or classes of products (*e.g.*, PPIs). This may provide relevant information pertaining to product labeling and the FDA's current view on the safety of this class of medications. AstraZeneca has refused to produce such information.

Plaintiffs' requests described herein are intended to provide relevant information, and we respectfully submit that the Court should order AstraZeneca to promptly produce the documents at issue. We look forward to discussing these issues in more detail with the Court at the January 12, 2018 status conference.

Respectfully submitted,

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Plaintiffs' Co-Lead Counsel

cc: All Counsel of Record (via ECF)

Exhibit A

<u>SEARCH TERMS</u>	<u>MODIFIERS FOR INDIVIDUAL TERMS (IF NEEDED)</u>
<u>DRUG NAMES</u>	
eso	
"proton pump"	
"protonpumpshämmare"	
"purple pill"	
"purple plus"	
Agopton	
Dexal*	
Dexel*	
Dexil*	
dexlanso*	
dexlansop*	
esemep*	
esimep*	
esomep*	
esomip*	
lanso*	
lansop*	
Losec	
Losek	
Losic	
NapraPAC	
Nexe*	
Nexi*	
ome	
omep*	
omip*	
panto*	
PPI	
PPIs	
Pravac*	
Prevac*	
Prevoc*	
Prevpac	
Priles*	
Prilos*	
Privac*	
Protium	
Protonix	
Somac	
Takepron	
Tecta	
Zoton	
<u>CLINICAL TRIAL/PROTOCOL/NDA/IND NUMBERS/PROJECT TEAMS</u>	
"300-US"	
"168/68"	
"199/18"	
"301-US"	

<u>SEARCH TERMS</u>	<u>MODIFIERS FOR INDIVIDUAL TERMS (IF NEEDED)</u>
"H 168"	
"H 199"	
"IND 069927"	
"IND 106858"	
"IND 30159"	
"IND 41938"	
"IND 41938"	
"IND 44219"	
"IND 44532"	
"IND 47829"	
"IND 49193"	
"IND 58341"	
"IND 60103"	
"IND 63300"	
"IND 72500"	
"PPI Team"	
"Shark Fin"	
(NDA or application) /2 (019810 or 19810)	
(NDA or application) /2 (020406 or 20406)	
(NDA or application) /2 (020876 or 20876)	
(NDA or application) /2 (020877 or 20877)	
(NDA or application) /2 (020878 or 20878)	
(NDA or application) /2 (021153 or 21153)	
(NDA or application) /2 (021229 or 21229)	
(NDA or application) /2 (021281 or 21281)	
(NDA or application) /2 (021331 or 21331)	
(NDA or application) /2 (021428 or 21428)	
(NDA or application) /2 (021507 or 21507)	
(NDA or application) /2 (021566 or 21566)	
(NDA or application) /2 (021689 or 21689)	
(NDA or application) /2 (021957 or 21957)	
(NDA or application) /2 (022056 or 22056)	
(NDA or application) /2 (022101 or 22101)	
(NDA or application) /2 (022287 or 22287)	
(NDA or application) /2 (050743 or 50743)	
(NDA or application) /2 (050757 or 50757)	
(NDA or application) /2 (208056)	
(NDA or application) /2 204655	
(NDA or application) /2 207920	
H168	
H199	
Nobel	
SOPRAN	
<u>MEDICAL/SCIENTIFIC TERMS</u>	
"acute tubular necrosis"	

SEARCH TERMS	MODIFIERS FOR INDIVIDUAL TERMS (IF NEEDED)
"adverse event" or "serious adverse" or AER or FAER	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)
"antidiuretic hormone"	
"ATPase inhibitor"	
"blood alkaline"	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)
"blood creatine"	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)
"blood urea"	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)
"Drug reaction with eosinophilia and systemic symptoms syndrome"	
"Potential adverse effects of long term use of PPIs"	
"triad hypersensitivity" w/1 reaction*	

SEARCH TERMS	MODIFIERS FOR INDIVIDUAL TERMS (IF NEEDED)
renal	AND (PPI or "Proton Pump" or Nexi or Prilo* or Esome* or Omep* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)
acidosis	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)
AE	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)
AIN	
AKI	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)

SEARCH TERMS	MODIFIERS FOR INDIVIDUAL TERMS (IF NEEDED)
alkalosis	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)
allergic	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)
amylase*	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)
antigen	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)

SEARCH TERMS	MODIFIERS FOR INDIVIDUAL TERMS (IF NEEDED)
ARF	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)
ATIN	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)
ATN	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)
BUN	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)

SEARCH TERMS	MODIFIERS FOR INDIVIDUAL TERMS (IF NEEDED)
burn	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)
cholangit*	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)
CKD	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)
dialys*	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)

SEARCH TERMS	MODIFIERS FOR INDIVIDUAL TERMS (IF NEEDED)
disproportionality	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omeprazole* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)
diuretic	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omeprazole* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)
dose or dosing or "lower dose"	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omeprazole* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)
dose-related	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omeprazole* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)

SEARCH TERMS	MODIFIERS FOR INDIVIDUAL TERMS (IF NEEDED)
EB05	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)
eGFR	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)
erosive	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)
esophagitis	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)

SEARCH TERMS	MODIFIERS FOR INDIVIDUAL TERMS (IF NEEDED)
ESRD	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)
gastrointest*	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)
Azotemia	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)
GERD	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)

SEARCH TERMS	MODIFIERS FOR INDIVIDUAL TERMS (IF NEEDED)
GFR*	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omeprazole* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)
(glomerular /2 nephritis)	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omeprazole* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)
glomerulonephritis	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omeprazole* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)
(glomerular /2 nephritis)	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omeprazole* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)

SEARCH TERMS	MODIFIERS FOR INDIVIDUAL TERMS (IF NEEDED)
heartburn	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)
hyperkal*	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)
hyperphosph*	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)
hypoalbum*	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)

SEARCH TERMS	MODIFIERS FOR INDIVIDUAL TERMS (IF NEEDED)
hypocalc*	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)
hyponatraemia	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)
hypovolem*	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)
interstit*	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)

SEARCH TERMS	MODIFIERS FOR INDIVIDUAL TERMS (IF NEEDED)
kidney*	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)
nefrit*	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)
neph*	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)
njurinsufficiens	
njursjukdom	
njursskada	
njursvikt	
Njursvikt	
oliguria	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)

SEARCH TERMS	MODIFIERS FOR INDIVIDUAL TERMS (IF NEEDED)
reflux	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)
renal*	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)
"rat study"	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)
"rat studies"	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)

SEARCH TERMS	MODIFIERS FOR INDIVIDUAL TERMS (IF NEEDED)
rats	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)
sedimentation	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)
signal	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)
rebound	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)

SEARCH TERMS	MODIFIERS FOR INDIVIDUAL TERMS (IF NEEDED)
rechallenge	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)
relatedness	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)
TIN	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)
tubule*	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)

SEARCH TERMS	MODIFIERS FOR INDIVIDUAL TERMS (IF NEEDED)
Tubulitis	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omeprazole* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)
Tubulointerstitium	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omeprazole* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)
uria*	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omeprazole* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)
INDUSTRY/TRADE/MARKETING TERMS	
"Adv. Comm*"	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omeprazole* or Nobel or "Shark Fin")
"Core Data Sheet" or "CDS" or "CCDS"	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omeprazole* or Nobel or "Shark Fin")
"Dear Doctor" or "Dear HCP" or "Dear Health Care"	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omeprazole* or Nobel or "Shark Fin")
"detail aid" or "sales aid"	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omeprazole* or Nobel or "Shark Fin")

SEARCH TERMS	MODIFIERS FOR INDIVIDUAL TERMS (IF NEEDED)
"European Medicines Agency" OR EMA* OR EMEA*	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omeprazole* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)
"Health Canada"	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omeprazole* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)
"Medicines and Healthcare products regulatory agency" OR MHPRA OR MAHA OR MHRA	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omeprazole* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)
"Therapeutic Goods Administration" OR TGA	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omeprazole* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)
"obstacle handler" or obstacle response"	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omeprazole* or Nobel or "Shark Fin")
"opinion leader"	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omeprazole* or Nobel or "Shark Fin")
"Product Insert"	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omeprazole* or Nobel or "Shark Fin")
"professional education" or "prof ed"	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omeprazole* or Nobel or "Shark Fin")

SEARCH TERMS	MODIFIERS FOR INDIVIDUAL TERMS (IF NEEDED)
"Public Citizens"	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin")
"Scientific Investigations"	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin" or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)
"thought leader"	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin")
Adcom	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin")
Adcomm	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin")
advisory w/2 (board or comm*)	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin")
branding	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin")
CHPA or "Consumer Healthcare Products Association"	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin")
DTC or "direct to consumer"	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin")
FDA	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin")
KOL	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin")
"Larry the Cable Guy"	
market*	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin")
MedWatch	AND (PPI or "Proton Pump" or Nexium or Prilosec or Esomeprazole or Omeprazole or 3001 or "300-US" or "301-US" or H168 or H199 or 19810 or 20406 or 20876 or 20877 or 20878 or 21153 or 21229 or 21281 or 21331 or 21428 or 21507 or 21566 or 21689 or 21957 or 22056 or 22101 or 22287 or 50743 or 50757 or 20856 or 204655 or 207920 or 69927 or 106858 or 30159 or 41938 or 44219 or 44532 or 47829 or 49193 or 58341 or 60103 or 63300 or 72500)
messaging	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin")
off-label	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin")
OPDP	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omep* or Nobel or "Shark Fin")

<u>SEARCH TERMS</u>	<u>MODIFIERS FOR INDIVIDUAL TERMS (IF NEEDED)</u>
OTC or "over the counter"	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omeprazole* or Nobel or "Shark Fin")
pharmacovig* or PV	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omeprazole* or Nobel or "Shark Fin")
PhRMA or "Pharmaceutical Research Manufacturers of America"	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omeprazole* or Nobel or "Shark Fin")
PI	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omeprazole* or Nobel or "Shark Fin")
promot*	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omeprazole* or Nobel or "Shark Fin")
speaker	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omeprazole* or Nobel or "Shark Fin")
unbranded	AND (PPI or "Proton Pump" or Nexi* or Prilo* or Esome* or Omeprazole* or Nobel or "Shark Fin")
wildberry	
<u>AUTHORS AND JOURNAL NAMES (FOR ARTICLES CONCERNING PPIs)</u>	
Amiri	
Antoniou	
Arora	
Avinash	
Badov	
Baker	
Berney-Meyer	
Bjorkman	
Blank	
Brewster	
Chan	
Christensen	
Coca	
d'Adamo	
Davis	
Delve	
Doshi	
Eusebi	
"Excerpta Medica"	
Freedberg	
Gatt	
Geevasinga	
Goodsall	
Gronich	
Härmark	
Hung	
Johnson	
Katz	
Kheloufi	
Klassen	
Klatte	

SEARCH TERMS	MODIFIERS FOR INDIVIDUAL TERMS (IF NEEDED)
Klepser	
Landray	
Lazarus	
Leonard	
Lieten	
Limaye	
Maes	
Malfertheiner	
Moledina	
Muriithi	
Nast	
Nochaiwong	
Noone	
Peloton	
Peng	
Perazella	
Ray	
Ricketson	
Ruffenach	
Sachs	
Sampathkumar	
Scarpignato	
"Scientific Connexions"	
Sierra	
Simpson	
Stancavish	
Tomlinson	
Torpey	
Toth-Manikowski	
Vaezi	
Wall	
Wallerstedt	
Warning	
Wijarnpreecha	
Wolters	
Wu	
Xie	
Yadlapati	
Yepuri	
"Am J Med" OR "American Journal Medicine"	DATE RANGE (03/01/92 TO 09/01/92)
"Am J Med" OR "American Journal Medicine"	DATE RANGE (08/01/93 TO 02/01/94)
Lancet	DATE RANGE (10/01/92 TO 04/01/93)
"Aust NZ J Med" OR "Australian and New Zealand Journal of Medicine"	DATE RANGE (04/01/94 TO 10/01/94)
"J Am Soc Nephrol" OR "Journal of the American Society of Nephrology"	DATE RANGE (06/01/94 TO 12/01/94)
Lancet	DATE RANGE (05/20/94 TO 02/01/95)
"Clin Nephrol" OR "Clinical Nephrology"	DATE RANGE (05/01/94 TO 11/01/94)
"Med J Aust" OR "Medical Journal of Australia"	DATE RANGE (05/01/96 TO 11/01/96)

SEARCH TERMS	MODIFIERS FOR INDIVIDUAL TERMS (IF NEEDED)
"Ren Fail" OR "Renal Failure"	DATE RANGE (10/01/96 TO 04/01/97)
"Nephrol Dial Transplant" OR "Nephrology Dialysis Transplantation"	DATE RANGE (03/01/97 TO 09/01/97)
"J Clin Gastroenterol" OR "Journal of Clinical Gastroenterology"	DATE RANGE (06/01/97 TO 12/01/97)
"Am J Nephrol" OR "American Journal of Nephrology" OR "Journal of Nephrology"	DATE RANGE (12/01/96 TO 05/01/97)
"Postgrad Med J" OR "Postgraduate Medicine Journal"	DATE RANGE (10/01/97 TO 04/01/98)
"Am J Gastroenterol" OR "Journal of Gastroenterology" OR "American Gastroenterology"	DATE RANGE (03/01/99 TO 03/01/00)
"Aust NZ J Med" OR "Australian and New Zealand Journal of Medicine"	DATE RANGE (10/01/98 TO 04/01/99)
"Nephrol Dial Transplant" OR "Nephrology Dialysis Transplantation"	DATE RANGE (01/01/00 TO 07/01/00)
"Neth J Med" OR "Netherlands Journal of Medicine"	DATE RANGE (02/01/00 TO 08/01/00)
Nursing	DATE RANGE (07/01/00 TO 02/01/01)
"Australian Adverse Drug Reaction Bulletin" OR AADR	DATE RANGE (01/01/03 TO 07/01/03)
"N Z Med J" OR "New Zealand Medical Journal"	DATE RANGE (12/01/02 TO 05/01/03)
"Ann Pharmacother" OR "Annals of Pharmacotherapy"	DATE RANGE (10/01/03 TO 04/01/04)
"J Nephrol" OR "Journal of Nephrology" OR "Nephrology Journal"	DATE RANGE (01/01/04 TO 07/01/04)
"Nephrol Dial Transplant" OR "Nephrology Dialysis Transplantation"	DATE RANGE (10/01/03 TO 06/01/04)
Nephrology	DATE RANGE (08/01/04 TO 02/01/05)
"Med J Aust" OR "Medical Journal of Australia"	DATE RANGE (09/01/05 TO 02/01/06)
"Clin Gastroenterol Hepatol" OR "Clinical Gastroenterology"	DATE RANGE (02/01/06 TO 08/01/06)
Nephrology	DATE RANGE (03/01/06 TO 09/01/06)
"Aust Prescrib" OR "Australian Prescriber"	DATE RANGE (03/01/07 TO 09/01/07)
"Kidney Int" OR "Kidney Intl" OR "Kidney International"	DATE RANGE (09/01/07 TO 03/01/08)
"Clin Nephrol" OR "Clinical Nephrology"	DATE RANGE (01/01/07 TO 06/01/07)
"Aliment Pharmacol Ther" OR "Alimentary Pharmacology"	DATE RANGE (03/01/06 TO 09/01/06)
"Br J Clin Pharmacol" OR "British Journal of Pharmacology"	DATE RANGE (04/01/07 TO 10/01/07)
CMAJ OR "Canadian Medical Association"	DATE RANGE (12/01/08 TO 06/01/09)
"Hosp Phys" OR "Hospital Physician"	DATE RANGE (11/01/08 TO 05/01/09)
"Nat Rev Nephrol" OR "Nature Reviews Nephrology"	DATE RANGE (05/01/10 TO 11/01/10)
BMJ	DATE RANGE (06/01/10 TO 12/01/10)
JAGS OR "American Geriatrics Society"	DATE RANGE (09/01/10 TO 03/01/11)
"Pharmacoepidemiol Drug Saf" OR "Pharmacoepidemiology"	DATE RANGE (05/01/12 TO 11/01/12)
CMAJ OR "Canadian Medical Association"	DATE RANGE (10/01/12 TO 04/01/13)
"Indian J Nephrol" OR "Indian Journal of Nephrology"	DATE RANGE (05/01/13 TO 11/01/13)
"BMC Nephrol" OR "Biomed Central Nephrology"	DATE RANGE (04/01/13 TO 10/01/13)
"CMJ Case Report" OR "Ceylon Medical Journal"	DATE RANGE (07/01/14 TO 01/01/15)
"J Nephrol Ther" OR "Journal of Nephrology" OR "Nephrology and Therapeutics"	DATE RANGE (01/01/14 TO 07/01/14)
Nephrology	DATE RANGE (01/01/14 TO 07/01/14)

SEARCH TERMS	MODIFIERS FOR INDIVIDUAL TERMS (IF NEEDED)
"Am J Kidney Dis" OR "Journal of Kidney Disease"	DATE RANGE (03/01/14 TO 09/01/14)
"Kidney Int" OR "Kidney Intl" OR "Kidney International"	DATE RANGE (12/01/13 TO 06/01/14)
"CMAJ Open" OR "Canadian Medical Association"	DATE RANGE (01/01/15 TO 07/01/15)
"Marshall Journal of Medicine"	DATE RANGE (10/01/15 TO 04/01/16)
"JAMA Intern Med" OR JAMA OR "Jama Internal Medicine"	DATE RANGE (10/01/15 TO 04/01/16)
"J Clin Pharmacol" OR "Journal of Clinical Pharmacology"	DATE RANGE (09/01/16 TO 02/01/17)
"Medicine (Baltimore)" OR "Medicine Baltimore"	DATE RANGE (01/01/16 TO 07/01/16)
"Circ Res" OR "Circulation Research"	DATE RANGE (02/01/16 TO 08/01/16)
"Int J Basic Clin Pharmacol" OR "Basic & Clinical Pharmacology"	DATE RANGE (04/01/16 TO 10/01/16)
"BMC Nephrol" OR "Biomed Central Nephrology"	DATE RANGE (08/01/16 TO 02/01/17)
"J Am Soc Nephrol" OR "Journal of the American Society of Nephrology"	DATE RANGE (12/01/15 TO 06/01/16)
"J Nephrol" OR "Journal of Nephrology" OR "Nephrology Journal"	DATE RANGE (01/01/16 TO 07/01/16)
"BMC Med" OR "Biomed Central Medicine"	DATE RANGE (08/01/16 TO 02/01/17)
"Pharmacoepidemiol Drug Saf" OR "Pharmacoepidemiology"	DATE RANGE (07/01/16 TO 01/01/18)
"J Gastroenterol Hepatol" OR "Journal of Gastroenterology"	DATE RANGE (10/01/16 TO 04/01/17)
"Nephrol Dial Transplant" OR "Nephrology Dialysis Transplantation"	DATE RANGE (12/01/16 TO 06/01/17)
"Adv Chronic Kidney" OR "Advances in Chronic Kidney Disease" OR "National Kidney Foundation"	DATE RANGE (12/01/16 TO 06/01/17)
Gastroenterology OR "American Gastroenterological Association"	DATE RANGE (12/01/16 TO 08/01/17)
"Kidney International Reports" OR "Kidney Intl" OR "Kidney International"	DATE RANGE (09/01/16 TO 04/01/17)
"J CLINICAL & DIAGNOSTIC RESEARCH" OR "Clinical and Diagnostic Research"	DATE RANGE (01/01/17 TO 07/01/17)
"J Renal Endocrinology " OR "Journal of Renal Endocrinology"	DATE RANGE (01/01/17 TO 07/01/17)
"J Clinical Endocrinology & Metabolism " OR "Journal of Clinical Endocrinology"	DATE RANGE (03/01/17 TO 10/01/17)
"Therapeutic Advances in Drug Safety"	DATE RANGE (06/01/17 TO 12/01/17)
"BMJ Open"	DATE RANGE (12/01/16 TO 06/01/17)
"J Allergy & Clinical Immunology" OR "Journal of Allergy"	DATE RANGE (03/01/17 TO 10/01/17)
Gastroenterology OR "American Gastroenterological Association"	DATE RANGE (06/01/17 TO 12/01/17)
"Digestive Diseases and Sciences"	DATE RANGE (05/01/17 TO 01/01/18)
"Gastroenterology & Hepatology"	DATE RANGE (06/01/17 TO 12/01/17)
"European Geriatric Medicine" OR "European Geriatric"	DATE RANGE (08/01/17 TO 02/01/18)
"Family Practice"	DATE RANGE (07/01/17 TO 01/01/18)
Therapie	DATE RANGE (05/01/17 TO 01/01/18)
"Clin Epidemiol Global Health" OR "Clinical Epidemiology" OR "Epidemiology and Global Health"	DATE RANGE (09/01/17 TO CURRENT)

Exhibit B

Terms

(2 w/2 Pump*) OR (two w/2 pump*)
(Aging w/2 Male*) OR (ADAM w/5 question*)
(Replac* w/2 therap*)
(T w/2 therap*) OR Ttherap*
(Turn w/5 Up*) OR *Turnitup* OR "Turn-it-Up"
00058 OR *00-058*
00065 OR *00-065*
01-065 OR *01065*
01-075 OR *01075*
01077 OR *01-077*
01080 OR *01-080*
01-081 OR *01081*
01-082 OR *01082*
01-085 OR *01085*
01-088 OR *01088*
01-089 OR *01089*
01090 OR *01-090*
01-092 OR *01092*
01093 OR *01-093*
02-095 OR *02095*
02-097 OR *02097*
02-098 OR *02098*
02-114 OR *02114*
02-092 OR *02092*
02093 OR *02-093*
12613
14675
2001-46
2002-S07
2002-S11
2003-S01
2003-S02
2003-S04
2003-S07
2003-S08
2003-S09
2003-S13
2003-S15
2004-S01
2004-S02
2004-S05
2004-S10
2004-S11

2004-S12
2004-S13
2004-S14
2004-S14
2004-S18
2004-S18
2005-S06
2005-S06
2005-S07
2005-S07
2005-S09
21015 OR *021015* OR "*21,015*" OR "*21-015*" OR "*21 015*"
22309 OR *022309* OR "*22,309*" OR "*22-309*" OR "*22 309*"
8796
94-07 OR *9407*
96012 OR *96-012*
96017 OR *96-017*
97023 OR *97-023*
98-012 OR *98012*
98-023 OR *98023*
98035 OR *98-035*
98-037 OR *98037*
98038 OR *98-038*
98039 OR *98-039*
98-043 OR *98043*
98044 OR *98-044*
98045 OR *98-045*
98943 OR *98-943*
98946 OR *98-946*
98948 OR *98-948*
99-017 OR *99017*
99037 OR *99-037*
99-039 OR *99039*
AA2500 OR "*AA 2500*"
DHT
Driveforfive OR (Drive w/5 Five)
*gel OR *gels OR Vogelxo* OR Gelifi* OR "gel/day" OR gelday*
Gonad
GR-
HG
HRT
LIMD
LPCN
M12-781 OR *M12 781* OR *M12781*

M13-732 OR *M13 732* OR *M13732*
M13-903 OR *M13 903* OR *M13903*
M14-077 OR *M14 077* OR *M14077*
Mustang
SLV176 OR (*SLV w/3 176*) OR *S176* OR "*SLV 176*" OR "*SLV-176*" OR (*S w/3 176*) OR "*S-176*" OR "*S 176*"
testadi
Testostero OR *Testsotero* OR *Textostero*
Testostero
TRT
TTRT
UMD
1,62* OR 1.62*
Adro*
AG
Ando*
andro*
Aveed*
Axiron* OR Axrion*
Cypionate* OR Cypianate* OR Cipionate* OR Cipianate*
Delatestryl* OR Dalatestryl*
Depandro* OR Dependro*
ditate* or ditite*
Enanthate* OR Enathate* OR Enatate* OR Enananthate*
Estradiol* OR Estradial*
Fortesta* OR Foretesta*
FT
Klinefelter* OR Kleinfelter* OR Klienfelter* OR KS* OR 47,XXY OR XXY
Low-T OR "Low T" OR *lowt* OR (low w/2 t*)
Manopause*
Striant* OR Striont*
T w/5 (CME* OR "Continuous Medical Education" OR "Continuing Medical Education")
T w/5 (DTC OR "Direct to Consumer")
T w/5 (KOL* OR "key opinion leader*")
T w/5 (off w/3 label*)
T w/5 (TIA* OR "Transient Ischemic Attack")
T w/5 *approv*
T w/5 *caution*
T w/5 *clinic*
T w/5 *effectiv*
T w/5 *health*
T w/5 *market*
T w/5 abstract*
T w/5 Adver*

T w/5 benefi*
T w/5 clot*
T w/5 Concentrat*
T w/5 Danger*
T w/5 Death*
T w/5 Defect*
T w/5 Died
T w/5 Erect*
T w/5 Esprit*
T w/5 Failure*
T w/5 Geriatric*
T w/5 Hazard*
T w/5 Heart*
T w/5 Hormon*
T w/5 Investigat*
T w/5 Issue*
T w/5 Label*
T w/5 Level*
T w/5 Libido
T w/5 Manuscript*
T w/5 Meeting*
T w/5 Obstruction*
T w/5 Outcome*
T w/5 Outreach*
T w/5 Paper*
T w/5 Polycythemia
T w/5 Problem*
T w/5 Profit*
T w/5 Promotion*
T w/5 Range*
T w/5 React*
T w/5 Resistance*
T w/5 Risk*
T w/5 Safe*
T w/5 sell*
T w/5 Serum*
T w/5 Sex*
T w/5 Sperm*
T w/5 Strength*
T w/5 Stroke*
T w/5 Stud*
T w/5 Test*
T w/5 Therap*
T w/5 Treat*

T w/5 Trial*
T w/5 Warning*
Testes
Testic*
Testim*
testis
Testoderm*
Testogel*
Testopel*
Testred*
TT*
Virilon* OR Virlion* OR Virilan* OR Virlian*

Exhibit C

In re Benicar (Olmesartan) Products Liability Litigation
MDL No. 2606

Exhibit B

Japanese Search Terms	English Search Terms
75758273	75758273
副作用 or 有害事象 or 報告事象	"adverse event"
"食品医薬品局"	"food and drug administration" or "food & drug administration"
"免疫反応" or "免疫 w/5 反応"	"immune reaction"
"炎症性腸疾患" or "炎症性腸"	"inflammatory bowel"
"上皮内リンパ球" or "上皮内リンパ細胞"	"Intraepithelial lymphocytes"
"過敏性腸" or "過敏性大腸" or "腸管過敏"	"Irritable Bowel"
"ロードマップ" or "Randomised Olmesartan and Diabetes Microalbuminuria Prevention"	"Randomised Olmesartan and Diabetes Microalbuminuria Prevention"
"無作為化比較試験" or "無作為コントロール試験" or "無作為比較対照試験" or "ランダム化比較試験" or "RCT" or "無作為対照化試験"	"Randomized Control Trial"
"腎不全" or "腎機能不全"	"renal failure"
"選択的AT1" or "選択的 AT1"	"Selective AT1"
"便試料" or "便検体" or "便サンプル" or "糞便検体"	"Stool specimen"
(Dr w/2 Green) or (博士 w/2 Green) or (博士 w/2 グリーン) or (ドクター w/2 Green) or (ドクター w/2 グリーン)	(Dr w/2 Green)
(Dr. w/2 Green) or (博士 w/2 Green) or (博士 w/2 グリーン) or (ドクター w/2 Green) or (ドクター w/2 グリーン) or (ドクター・w/2 Green) or (ドクター・w/2 グリーン)	(Dr. w/2 Green)
(M.D. w/2 Green) or (医学博士 w/2 Green) or (医学博士 w/2 グリーン) or (医師 w/2 Green) or (医師 w/2 グリーン)	(M.D. w/2 Green)
(MD w/2 Green) or (医学博士 w/2 Green) or (医学博士 w/2 グリーン) or (医師 w/2 Green) or (医師 w/2 グリーン)	(MD w/2 Green)

In re Benicar (Olmesartan) Products Liability Litigation

MDL No. 2606

(Peter w/2 Green) or (ピーター w/2 グリーン)	(Peter w/2 Green)
(Green w/10 study) OR (Green w/10 研究) OR (グリーン w/10 研究) OR (グリーン w/10 study) OR (Green w/10 スタディー) OR (グリーン w/10 スタディー) OR (Green w/10 試験) OR (グリーン w/10 試験)	"Green /10 study"
*@fda.hhs.gov	*@fda.hhs.gov
*@nih.hhs.gov	*@nih.hhs.gov
*腸炎	*Enteritis
水和 or *水化* or *ヒドラ* or *含水*	*Hydrat*
Sentinel or *センチネル* or *センティネル*	*Sentinel*
*Sevikar or *セビカー or *セヴィカー	*Sevikar
Volem or *血液量* or *血量* or *多血*	*Volem*
OQMT	OQMT
14953 or "14 953" or 14 w/2 953	14953 or "14 953" or 14 w/2 953
19629 or "19 629" or 19 w/2 629	19629 or "19 629" or 19 w/2 629
200 175 or 200 w/2 175	200 175 or 200 w/2 175
21286 or "21 286" or 21 w/2 286	21286 or "21 286" or 21 w/2 286
21532 or "21 532" or 21 w/2 532	21532 or "21 532" or 21 w/2 532
22100 or "22 100" or 22 w/2 100	22100 or "22 100" or 22 w/2 100
47887 or "47 887" or 47 w/2 887	47887 or "47 887" or 47 w/2 887
70410 or "70 410" or 70 w/2 410	70410 or "70 410" or 70 w/2 410
77651 or "77 651" or 77 w/2 651	77651 or "77 651" or 77 w/2 651
866-204 or "866 204" or (866 w/2 204)	866-204 or "866 204" or (866 w/2 204)
腹痛 or 腹部痛 or 腹部の痛み	Abdominal pain
異常*	Abnorm*
アムロジピン	Amlodipine
貧血*	Anaemi*
貧血*	Anemi*
アンジオテンシン or アンギオテンシン	Angiotensin
細胞消滅* or 細胞自滅* or プログラム死* or アポトーシス* or プログラム細胞死* or アポトーシス* or 枯死*	apopto*

In re Benicar (Olmesartan) Products Liability Litigation
MDL No. 2606

ARB or アンジオテンシン受容体遮断薬 or アンジオテンシン受容体拮抗薬	ARB
AT2 or Angiotensin II type 2 receptor or アンジオテンシン2型受容体 or アンジオテンシンII受容体	AT2
萎縮* or 無栄養*	Atroph*
Azor or エイゾール	Azor
Benevas or ベネバス	Benevas
Benicar or ベニカー	Benicar
Besylate or ベシレート or ベシル酸 or ベシレイト	Besylate
膨満* or 膨張* or 鼓腸*	Bloat*
鈍らせ* or 平滑末端化* or 末端が平滑化した*	Blunt*
ブデソニド	budesonide
セリアック or シリアック or 腹腔	Celiac
細胞 AND 伝達* or (細胞 AND 媒介*) or (*細胞* AND *伝達*) or (*細胞* AND *媒介*)	Cell AND Mediat*
Cipla or シプラ	Cipla
セリアック or シリアック	Coeliac
大腸炎 or 結腸炎	Colitis
コラーゲン* or 膠原*	Collagen*
結腸* or 大腸*	Colon*
Columbia or コロンビア	Columbia
比較試験 or 比較対象試験 or コントロール試験 or 対照試験	Control Trial
CS866 or (CS w/2 866) or "CS 866"	CS866 or (CS w/2 866) or "CS 866"
C29H30N6O6	C29H30N6O6
排便* or 排泄* or 排出*	Defaecat*

In re Benicar (Olmesartan) Products Liability Litigation
MDL No. 2606

排便* or 排泄* or 排出*	Defecat*
脱水*	Dehydrat*
下痢*	Diarrh*
憩室炎	Diverticulitis
DNA	DNA
DQ2 w/2 8	DQ2 w/2 8
十二指腸*	Duoden*
電気* or 導電* or 電解* or 電子*	Electoro*
電解質 or 電解液	electrolyte
筋内膜の	endomysial
内視鏡検査 or 内視鏡検査法	endoscopy
腸*	Entero*
食道*	Esophag*
FAERS or 有害事象報告 or 有害事象自発報告 or 有害事象報告システム or 有害事象自発報告システム	FAERS
Fiddes or フィデス or フィッデス	Fiddes
平ら* OR 平坦* or 鼓腸*	Flat*
胃*	Gastr*
遺伝子	Gene
GFD or 無グルテン食 or グルテン除去食	GFD
GI or 胃腸の or 消化管の or 消化器系の or 胃腸管系の or 胃腸内の	GI
グルテン or 麩質 or 麩素	Gluten
Golme* or ゴルメ or ゴロメ	Golme

In re Benicar (Olmesartan) Products Liability Litigation
MDL No. 2606

Haller or ハラー or ハレル	Haller
HCT* or ヒドロクロロチアジド* or ハイドロクロロサイアザイド*	HCT*
Herman or ハーマン	Herman
(HLA AND DQ2) OR (HLA抗原 AND DQ2) OR (ヒトリンパ球抗原 AND DQ2) OR (ヒト白血球抗原 AND DQ2) OR (ヒトリンパ白血球抗原 AND DQ2)	HLA AND DQ2
HLA-DQ2/8 or HLA抗原-DQ2/8 or ヒトリンパ球抗原-DQ2/8 or ヒト白血球抗原-DQ2/8 or ヒトリンパ白血球抗原-DQ2/8	HLA-DQ2/8
血液量減少症 or 循環血液量減少症 or 血液量減少 or 循環血液量減少	Hypovolemia
ハイドロクロロサイアザイド or ヒドロクロロチアジド	Hydrochlorothiazide
低血圧* or 低圧の*	Hypotensi*
IBS or 過敏性大腸症候群 or 過敏性腸症候群 or 刺激性結腸症候群	IBS
ICD-9 or 第9回修正死因統計分類 or 第9回修正*	ICD-9
特異*	Idiosyn*
Iel or 上皮細胞間リンパ球	Iel
腸骨 or 回腸	Ileum
不均衡* or アンバランス* or 平衡失調* or 平衡異常*	Imbal*
腸*	Intestin*
Ito or 伊藤 or イトウ or いとう	Ito
Izzo or イゾ or イッツォ	Izzo
Januszewicz or ヤヌスゼウィッツ	Januszewicz
空腸	Jejunum
Katayama or 片山 or カタヤマ or かたやま	Katayama
腎臓* or 腎* or じん臓*	Kidn*

In re Benicar (Olmesartan) Products Liability Litigation
MDL No. 2606

肝臓 or 肝	Liver
Ludvigsson or ルドビグセン or ルドビグソン	Ludvigsson
リンパ* or リンパ液*	Lymph*
吸収不良* or 吸収不全* or 吸収障害*	Malabs*
栄養不良* OR 栄養失調* or 栄養障害*	Maln*
Mangan or マンガン	Mangan
Mayo or メイヨー or メイヨ	Mayo
メドキン*	Medoxo*
Medwatch or メドウォッチ	Medwatch
Menne* or メン* or メンネ*	Menne
化生 or 異形成 or 変質形成	Metaplasia
Mimran or ミムラン	Mimran
MMP or マトリックスメタロプロテイナーゼ	MMP
Murray or マレー	Murray
突然変異* or 変異の*	mutat*
吐き気* or 悪心* or 嘔気*	Naus*
necro* or 壊死*	Necro*
腎障害 or 腎症 or ネフロパシー	Nephropathy
Nutri* OR 栄養*	Nutri*
OLM* or オルメ*	OLM*
Olsart* or Olsart* or オルサルト*	Olsart
器官 or 臓器 or 内臓	Organ
動悸* or 心悸亢進*	Palpitat*
Perfora* or 穿孔* or 有孔の*	Perfora*
予防 or 予防法 or 防御	Prophylaxis
Rabelink or レイベリンク or ラベリンク	Rabelink

In re Benicar (Olmesartan) Products Liability Litigation
MDL No. 2606

RCT or 無作為化比較試験 or 無作為コントロール試験 or 無作為比較対照試験 or ランダム化比較試験	RCT
屈折* or リフラクター*	Refractor*
Rezaltas or レザルタス	Rezaltas
Ritz or リッツ	Ritz
Roadmap or ロードマップ	Roadmap
Rubio* or ルビオ*	Rubio*
Ruilope or ルイロペ	Ruilope
尻 or 臀部	Rump
*sartan or *サルタン	*sartan
SLE or スプルー様腸疾患	SLE
スプルー* or 特発性吸収不良* or 吸収不良症候群*	Spru*
Tapia or タピア	Tapia
Tennyson or テニソン	Tennyson
TGFb* or トランスフォーミング増殖因子β* or 形質転換増殖因子	TGFb
TPN or TPN剤 or 総静脈栄養 or トリフォスホピリジンヌクレオチド or 総合非経口栄養輸液 or 完全静脈栄養 or 高カロリー輸液	TPN
グルタミン転移酵素 or トランスグルタミナーゼ	Transglutaminase
Tribenzor or トライベンゾール or トリベンゾール	Tribenzor
Trilovasc or トリロバスク	Trilovasc
Trinity or トリニティ	Trinity
Tsung or ツング or ツン	Tsung
Viberti or ヴィベルティ or ビベルティ	Viberti
絨毛の or 絨毛状の	Vilious
絨毛の	Vilous
絨毛組織	Villas

In re Benicar (Olmesartan) Products Liability Litigation
MDL No. 2606

絨毛 or 柔突起 or 柔毛	Villi
絨毛 or 絨毛状の	Villious
絨毛 or 絨毛状の	Villous
絨毛 or 絨毛状の	Villus
Vious	Vious
嘔吐* or 吐*	Vomit*
警告 or 注意	Warning
体重 AND (減少* OR 増加)	Weight AND (los* OR gain)
WinBP*	WinBP
RZT	RZT
RNH-6270	RNH-6270
RNH-6334	RNH-6334