March 2, 2007

Secretary of the Expert Committee on the Selection and Use of Essential Medicines (2007)
Department of Medicines Policy and Standards (PSM)
Health Technology & Pharmaceuticals
World Health Organization
CH-1211 Geneva 27
Switzerland

Via e-mail: emisecretariat@who.int

RE: Request for changes in the WHO Model EML

Knowledge Ecology International (KEI) asks the Expert Committee on the Selection and Use of Essential Medicines to create a new category in the 'WHO Model List of Essential Medicines' (EML) for products that would be essential “if available from competitive generic suppliers at generic prices.” Within this new category, we ask that the Expert Committee review evidence regarding the following products:

<table>
<thead>
<tr>
<th>Disease Category</th>
<th>Generic Name</th>
<th>U.S. Proprietary Name</th>
<th>U.S. Patent Holder</th>
<th>Last year U.S. patent coverage</th>
<th>Indication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asthma</td>
<td>Montelukast sodium</td>
<td>Singulair</td>
<td>Merck</td>
<td>2012</td>
<td>Once daily tablet; leukotriene receptor antagonist for the management and treatment of asthma.</td>
</tr>
<tr>
<td>Bipolar Depression</td>
<td>Fluoxetine hydrochloride + Olanzapine</td>
<td>Symbyax</td>
<td>Lilly</td>
<td>2017</td>
<td>Once-daily tablet; combination atypical antipsychotic and SSRI-class antidepressant medication used in the treatment of bipolar depression.</td>
</tr>
<tr>
<td></td>
<td>Capecitabine</td>
<td>Xeloda</td>
<td>Roche</td>
<td>2013</td>
<td>Orally administered nucleoside for the treatment of metastatic breast and colorectal cancers.</td>
</tr>
<tr>
<td></td>
<td>Gemcitabine</td>
<td>Gemzar</td>
<td>Lilly</td>
<td>2013</td>
<td>IV-administered nucleoside for the treatment of cancers including non-small cell lung cancer, pancreatic cancer, bladder cancer, and breast</td>
</tr>
</tbody>
</table>
### Cancer

<table>
<thead>
<tr>
<th>Medication</th>
<th>Brand Name</th>
<th>Company</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPV Vaccine</td>
<td>Gardasil</td>
<td>Merck</td>
<td>2020</td>
</tr>
<tr>
<td>Imatinib mesylate</td>
<td>Gleevec</td>
<td>Novartis</td>
<td>2022</td>
</tr>
<tr>
<td>Temozolomide</td>
<td>Temodar</td>
<td>Schering</td>
<td>2014</td>
</tr>
<tr>
<td>Topotecan</td>
<td>Hycamtn</td>
<td>GSK</td>
<td>2010</td>
</tr>
<tr>
<td>Trastuzumab</td>
<td>Herceptin</td>
<td>Genentech</td>
<td>2018</td>
</tr>
</tbody>
</table>

### Diabetes Mellitus

<table>
<thead>
<tr>
<th>Medication</th>
<th>Brand Name</th>
<th>Company</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sitagliptin phosphate</td>
<td>Januvia</td>
<td>Merck</td>
<td>2022</td>
</tr>
</tbody>
</table>

### Eye Diseases

<table>
<thead>
<tr>
<th>Medication</th>
<th>Brand Name</th>
<th>Company</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ranibizumab</td>
<td>Lucentis</td>
<td>Genentech</td>
<td>2026</td>
</tr>
</tbody>
</table>

### HIV/AIDS

<table>
<thead>
<tr>
<th>Medication</th>
<th>Brand Name</th>
<th>Company</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emtricitabine</td>
<td>Emtriva</td>
<td>Gilead</td>
<td>2021</td>
</tr>
<tr>
<td>Tenofovir</td>
<td>Viread</td>
<td>Gilead</td>
<td>2021</td>
</tr>
<tr>
<td>Emtricitabine + tenofovir</td>
<td>Truvada</td>
<td>Gilead</td>
<td>2021</td>
</tr>
<tr>
<td>Emtricitabine + tenofovir + nevirapine</td>
<td>Atripla</td>
<td>Gilead</td>
<td>2021</td>
</tr>
<tr>
<td>Emtricitabine + tenofovir + nevirapine + raltegravir</td>
<td>Sympriv</td>
<td>Gilead</td>
<td>2022</td>
</tr>
</tbody>
</table>

### Influenza

<table>
<thead>
<tr>
<th>Medication</th>
<th>Brand Name</th>
<th>Company</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oseltamivir phosphate</td>
<td>Tamiflu</td>
<td>Roche</td>
<td>2016</td>
</tr>
</tbody>
</table>

Vaccine against human papillomavirus types 6,11,16, and 18. Types 16 and 18 are thought to cause 70% of cases of cervical cancer.

Orally administered tyrosine kinase inhibitor for the treatment of chronic myeloid leukemia (CML) and gastrointestinal stromal tumors (GIST).

Orally administered alkylating agent for the treatment of anaplastic astrocytoma (brain cancer).

IV-administered topoisomerase 1 inhibitor for the treatment of ovarian and lung cancer.

IV-administered monoclonal antibody to treat and prevent recurrence of HER2-positive metastatic breast cancer.

Once daily tablet; the first dipeptidyl peptidase-4 inhibitor for the control of type II diabetes mellitus.

Injected monoclonal antibody for the treatment of age related macular degeneration.

nucleoside reverse transcriptase inhibitor for treatment of HIV/AIDS.

nucleoside reverse transcriptase inhibitor for treatment of HIV/AIDS.

Once daily tablet; nucleoside reverse transcriptase inhibitor for treatment of HIV/AIDS. Once a day fixed does combination for the treatment of HIV/AIDS.

Treatment and prophylaxis of influenza, including avian flu.
<table>
<thead>
<tr>
<th>Ischemia</th>
<th>Atorvastatin</th>
<th>Lipitor</th>
<th>Pfizer</th>
<th>2018</th>
<th>Once daily tablet; Statin for the treatment of high cholesterol and triglycerides for the prevention of heart disease and stroke.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychotic Disorders</td>
<td>Olanzapine</td>
<td>Zyprexa</td>
<td>Lilly</td>
<td>2011</td>
<td>Atypical/second-generation antipsychotic for the treatment of schizophrenia, acute mixed or manic episodes of bipolar I disorder and maintenance treatment of bipolar disorder.</td>
</tr>
<tr>
<td></td>
<td>Quetiapine</td>
<td>Seroquel</td>
<td>AstraZeneca</td>
<td>2011</td>
<td>Atypical/second-generation antipsychotic for treatment of schizophrenia, acute manic episodes of bipolar I disorder, and as either monotherapy or adjunct therapy to lithium or divalproex.</td>
</tr>
</tbody>
</table>

Theses medicines are each subject to patent protection in a number of developing countries. Where patent owners have exclusive rights and generic products are not available, prices are high.

In 2001, the WTO adopted the Doha Declaration on TRIPS and Public Health, which clarified the country obligations under the primary global norm for protection of patents and other intellectual property. This declaration said the WTO TRIPS agreement “should be interpreted and implemented in a manner supportive of WTO members' right to protect public health and, in particular, to promote access to medicines for all.”

Following the 2001 Doha Declaration, a number of countries have used the flexibilities in the TRIPS agreement in a variety of ways, including by issuing non-voluntary authorizations to use patents (compulsory licenses, ex officio licenses, government use, crown use, etc.) in order to stimulate low-cost generic competition.

Today there are competitive generic markets for many of these products. For others, if sufficient numbers of countries obtain voluntary or non-voluntary licenses to patents, generic competition is
feasible. Separately, we are asking the WHO to consider the creation of a patent pool for patents associated with vaccines for the human papillomaviruses (HPV). The HPV patent pool would include patents necessary for the manufacture of generic versions of Gardasil, as well as other vaccines now in development, and it would also permit the creation of new vaccines that combine different patented technologies that are not restrictively licensed.

Thank you for your consideration of this request.

Sincerely,

James Love
Director

Ben Krohmal
Coordinator - Project on Medical Innovation

Judit Rius
Legal Advisor

Malini Aisola
Research Associate

Attachment
Attachment

Text of letter to Dr. Margaret Chan, Director-General Elect, World Health Organization (WHO), asking for a review of the Essential Drugs List (EDL) as it relates to patented products.

Consumer Project on Technology
http://www.cptech.org

December 1, 2006

Dr. Margaret Chan
Director-General Elect
World Health Organization
20 Avenue Appia
1211 Geneva 27
Switzerland

Fax number: 41 22 791 4864
Email: chanm@who.int

Dr. Margaret Chan

We are writing to request a review of the manner in which the WHO Essential Medicines List is composed.

The intent of the Essential Medicines List (EDL) is to present “a list of minimum medicine needs for a basic health care system, listing the most efficacious, safe and cost-effective medicines for priority conditions,” where priority diseases themselves are identified in part on the basis of the potential for cost-effective treatment. Given that countries are free to use various means, such as compulsory licenses, to increase access to medical products that can improve the public health, it is appropriate to reassess the role that cost – especially as reflected under current patent medicine pricing regimes – plays in this evaluation.

Patents on drugs, which are tied to market costs, are clearly a factor in determining the EDL, as remarkably few patented medicines are listed. To examine this, we referenced every medicine that appears in the most recent WHO List, the 2005 14th edition, to the U.S. Food and Drug Administration Electronic Orange Book (http://www.fda.gov/cder/ob/) to check for patent status and the availability of generics.

The attached Table summarizes the patented drugs on both lists.[1] Only 14 (12 on the core list and 2 on the complimentary list) of the total 312 medicines on the EDL are under a U.S. patent that bars generic competition at the listed dose and route of administration.

While the Orange Book does not include all medicines, and while there may be some discrepancy between products under patent in the U.S. and those under patent internationally, this is likely an accurate representation of the WHO EDL that are under patent worldwide.

Of the 14 “essential” drugs that are patented, 11 are patented antiretroviral drugs used for the treatment of AIDS. There are only three patented drugs on the EDL (one on the core list, and two on the complementary list) for all other diseases -- evidence that patents have distorted prices considerably, and created enormous access barriers for the poor.

Drug industry representatives have used the WHO EDL to argue that rigid intellectual property protections are not a barrier to essential medicines, because “no” patented medicines are “essential” according to the WHO.[2] Of course this is a distortion; many patented medicines currently not on the EDL would be
included were they available at generic prices – for instance the most recent list includes no patented anti-cancer drugs, and the core list includes no anti-cancer drugs whatsoever. The existence of a WHO “Essential Medicines List” which clearly does not contain many truly essential medicines may be confusing for public health officials and others and provide rhetorical fodder to those who oppose intellectual property flexibilities for health.

Simply put, the traditional intellectual property regime in place when the EDL was conceived in the 1970’s is no longer as firmly entrenched. The 1999 WHO Revised Drug Strategy, the 2001 WTO Doha Declaration on TRIPS and Public Health, the 2006 CIPIH report, the upcoming WHO Intergovernmental Working Group on Public Health, Innovation and Intellectual Property, and countless initiatives to address greater flexibility, including mechanisms other than rigid intellectual property rights for the promotion of medical innovation and the expanded use of compulsory licenses, are compelling testimonies to the importance and acceptance of the larger movement to overcome patent barriers when promoting "access to medicines for all."

Patented medicines currently available only at prohibitive prices may nonetheless offer the “potential for cost-effective treatment” as countries have the opportunity to legally produce or import generic versions. More critical to the evaluation of cost effectiveness under the emerging system is the true marginal cost of production, which bears little or no relationship to the market price in developed countries.

We believe that it is more appropriate that the Essential Medicines List reflect the opportunity that many countries have to obtain currently patented drugs at generic prices by assessing cost-effectiveness not only on the basis of current market prices, but also on the basis of potential generic prices if countries were to avail themselves of their right to exercise TRIPS flexibilities, including the granting of compulsory licenses. Developing countries in particular might stand to benefit from a model WHO Essential Medicines List that does not exclude essential patented medicines by ignoring the potential that those drugs could be obtained more cheaply. A welcome side-effect of this change would be an “Essential Medicines List” that more fully reflects the range of truly essential medicines, where essential reflects both the need for treatments and the costs of meeting those needs unburdened by patent rents.

We recognize that the current WHO Essential Medicines List (EDL) is designed to avoid high priced (less cost effective) patented medicines, that some national laws that reference the EDL create obligations for public outlays, and that these outlays may not be justified at the higher prices for patented medicines. The WHO could easily address this problem by creating a category within the EDL for medicines that are essential "if available at generic prices," an option that is clearly relevant for many developing countries.

We therefore propose a review of the policies and considerations that shape the WHO Essential Medicines List, to examine how the list should address medicines that are current under patent but could be manufactured or imported at generic prices.

Thank you for your consideration of this request.

Sincerely,

James Love
Director
CPTech
1621 Connecticut Avenue
Suite 500
Washington, DC 20009
CC: Bill Kean, Howard Zucker, Hans Hogerzeil, Malebona Matsoso

Attachment

**ESSENTIAL DRUGS LIST PRODUCTS UNDER PATENT**

**CORE LIST**

**DRUG INDICATION**
- Abacavir Antiretroviral
- Didanosine Antiretroviral
- Lamivudine Antiretroviral
- Stavudine Antiretroviral
- Efavirenz Antiretroviral
- Nevirapine Antiretroviral
- Indinavir Antiretroviral
- Ritonavir Antiretroviral
- Lopinavir + ritonavir Antiretroviral
- Nelfinavir Antiretroviral
- Saquinavir Antiretroviral
- Proguanil Malaria prophylaxis

**COMPLIMENTARY LIST**

**DRUG INDICATION**
- Levofloxacin Multi-drug resistant tuberculosis
- Eflornithine Antiprotozoal for trypanosomiasis

**FOOTNOTES**

[1] Background information on the actual U.S. patents is available on request.

[2] The first comprehensive analysis of the patent status of the WHO essential drugs list was a August 2001 PhRMA survey on patents in Africa, presented by Tom Bombelles on September 30, 2001, at the American Society of Law, Medicine & Ethics (ASLME) conference on Law and Human Rights, in Philadelphia. This data was later updated, and presented in a 2004 article in Health Affairs, by Amir Attaran. "How Do Patents And Economic Policies Affect Access To Essential Medicines In Developing Countries?,” Health Affairs, 23, no. 3 (2004): 155-166. Our letter to Health Affairs addressed logical fallacies in the Attaran article. James Love, "Drug Patents In Poor Countries," Health Affairs, 23, no. 5 (2004): 279. An example of the pharmaceutical industry use of the data on low patent coverage for the WHO essential drugs list is the May 4, 2004 IFPMA Press Release, "New Peer-Reviewed Study Shows That Patents on Essential Drugs Are Rare in Low-to Mid-Income Developing Countries," available on the web at http://www.ifpma.org/News/NewsReleaseDetail.aspx?nID=973, which reads in part: " 'By showing that the actual patenting of essential medicines in low- to mid-income developing countries is, in reality, quite rare, he gives policy-makers the opportunity to move away from a debate overly focusing on intellectual property rights and public health', notes Dr. Bale."