Pharmaceutical Crime

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# Pharmaceutical Crime

<table>
<thead>
<tr>
<th>Crime phenomena</th>
<th>Mechanisms</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Narcotic &amp; Psychotropic medicinal products</td>
<td>2) Internet</td>
</tr>
<tr>
<td>3) Veterinary related crime</td>
<td>4) Diversion</td>
</tr>
<tr>
<td>5) (Adulterated) food supplements</td>
<td>6) Authorizations</td>
</tr>
<tr>
<td>7) Unlicensed Medicines</td>
<td>8) Import, Export, Transit</td>
</tr>
<tr>
<td>9) Doping (H &amp; V)</td>
<td>10) Mailorder, Courier</td>
</tr>
<tr>
<td>11) Counterfeit &amp; IPR related problems</td>
<td>12) GMP-GDP-GCP-GVP</td>
</tr>
<tr>
<td>13) Forgery (adulteration, tampering, falsification)</td>
<td></td>
</tr>
<tr>
<td>14) Theft</td>
<td></td>
</tr>
</tbody>
</table>
Presented as

FOOD SUPPLEMENTS

which are

MEDICINES

(with labeled APIs)
Ebonosarm known as Ostarine

Investigational Selective Androgen Receptor Modulator (SARM)
Bioactive GHRP-2 ester Z11 (oral suspension)
LIPOSOMAL DELIVERY

MAXIMUM IGF-1 OUTPUT

Pharmadynamic IGF-1 Optimizer*
Stimulates Muscle Cell Growth*
Mediates Muscle Hyperplasia*
FastSorb™ Delivery

MAXIMUM IGF-1 OUTPUT*†
Presented as veterinarian supplement for humans containing prohormones mimicking Zambon anabolics (winstrol)

**Pharmaceutical Name**
(cyclostanozol™) 360mg/capsule - 60 capsules/bottle

**Effective Dose**
(Orals: 2 - 8 tabs/day)

**Price**
(Orals: $79.95 - 60 tab bottle)

**Cycle Info**
Effectively Stacked with D-bol during bulking cycles to reduce water retention and increase strength and energy levels. Also used individually to help promote lean, hard, and ripped muscle mass.
Anti-estrogen + DHEA
FOOD SUPPLEMENTS

which are

MEDICINES

(with non labeled & modified APIs)
Food Supplement
Phyto product falsified with (acetildenafil)
www: therapeutic claims
Registered APIs

- Sildenafil (Viagra®)

Analogs identified

- Homosildenafil
- Hydroxyhomosildenafil
- Thiosildenafil
- Piperidino-sildenafil
- Piperidino-acetildenafil
- Acetildenafil
- Hydroxy-acetildenafil
- Aildenafil
- Homo-thiosildenafil
- Nor-acetildenafil
- Thio-aildenafil
Falsified with SIBUTRAMIN
Table 1: A list of adulterants found in Chinese herbal medicines, and problems caused by adulterants (note that problems and adulterants are not linked in these lists)

<table>
<thead>
<tr>
<th>Adulterants found</th>
<th>Problems caused</th>
</tr>
</thead>
<tbody>
<tr>
<td>aminopyrine</td>
<td>agranulocytosis</td>
</tr>
<tr>
<td>caffeine</td>
<td>arrhythmia</td>
</tr>
<tr>
<td>chlorzoxazone</td>
<td>coma</td>
</tr>
<tr>
<td>clobetasol propionate</td>
<td>Cushing's syndrome</td>
</tr>
<tr>
<td>diazepam</td>
<td>diabetes</td>
</tr>
<tr>
<td>diclofenac</td>
<td>increased INR</td>
</tr>
<tr>
<td>dexamethasone</td>
<td>hypertension</td>
</tr>
<tr>
<td>ethoxybenzamide</td>
<td>hypoglycaemia</td>
</tr>
<tr>
<td>fluconolone acetonide</td>
<td>gastrointestinal bleeding</td>
</tr>
<tr>
<td>glibenclamide</td>
<td>septic shock</td>
</tr>
<tr>
<td>hydrochlorothiazide</td>
<td></td>
</tr>
<tr>
<td>hydrocortisone</td>
<td></td>
</tr>
<tr>
<td>indomethacin</td>
<td></td>
</tr>
<tr>
<td>mefenamic acid</td>
<td></td>
</tr>
<tr>
<td>methylsalicylate</td>
<td></td>
</tr>
<tr>
<td>paracetamol (acetaminophen)</td>
<td></td>
</tr>
<tr>
<td>phenacetin</td>
<td></td>
</tr>
<tr>
<td>phenytoin</td>
<td></td>
</tr>
<tr>
<td>prednisolone</td>
<td></td>
</tr>
<tr>
<td>prednisolone</td>
<td></td>
</tr>
<tr>
<td>sildenafil</td>
<td></td>
</tr>
</tbody>
</table>

http://www.medicine.ox.ac.uk/bandolier/band104/b104-8.html
Counterfeit Medical Products falsified in relation to identity, history or source
Falsified Anti-malarial

AUTHENTIC

FAKE
Falsified veterinarian medicines
Label font for product name and concentration is narrower.

Font used for LOT number and EXP on carton is rounder.

Label font for product name and concentration is rounder.

Font used for LOT number and EXP on carton is narrower.

Crisp, high-quality print on box.

Crisp, high-quality print on label.

Poor print quality on box.

Poor print quality on label.

Source: FDA
Source: FDA
Destroying Nigerian pharma industry!!

530,000 Tablets
Amoxil
500 mg
amoxicillin
100 capsules
Winstrol Depot
Stanozolol
Suspension injectable intramuscular
3 ampollas de 1 ml
NO API!!
Falsified Novo Nordisk Norditropin SimpleXx
Illegal market
Sterility test: Paenibacillus messiliensis
source: AEMPS Spain
MELANOTAN II
"Barbie drug": Tanning & Aphrodisiac

**MSH** (*Melanocyte Stimulating Hormone*) 1000 x more potent than natural alpha-MSH.

May cause skin cancer and damage immune and cardiovascular systems.
Shipped from China as MT2 (Melanotan) contains porcine insulin (2012).
Tβ4, a unique polypeptide of 43 amino acids, most potent Drug Free performance substance to the animal racing world.
TB-500 is a synthetic version of the naturally occurring peptide present in virtually all human and animal cells, Thymosin Beta 4 (TB500). It is a first-in-class drug candidate that promotes the following:

- Endothelial (blood vessels) cell differentiation
- Angiogenesis (growth of new blood cells from pre-existing vessels) in dermal tissues
- Keratinocyte migration
- Collagen deposition; and
- Decreases inflammation.
illegal medicines
(without Marketing Authorization)
GRF (1-29) or sermorelin CJC1295 = Research peptides
Canadian ConjuChem clinical trials mid 2000s
Treatment of obesitas in AIDS patients
Myocard infarct cases
10,000 vials anabolic steroids from Egypt March 2009
Flaraxin is effective in 90% of oncologic diseases, it is a non-toxic anti-tumoral phytopreparation, Interferonogene, stimulating tumoral necrosis factor, destroys tumoral tissue. Immunmodulator and antioxidant. Prevents metastatic spreading and relapse. Flaraxin has no side effects unless the patient has a allergy on iodine.

Clinical Research of the preparation “Flaraxin” was carried out in oncology department of Kiev medical institute in the period from September 1990 to January 1991 and In Kiev Oncology SRI under oncologic process in the stage of neglect desolation in patients with melanoblastoma in the period from December 1992 to October 1993 by the surgical oncologists Kulik Ivan Anisimovich.
Falsified Medical Devices
Urgente Veiligheidsinformatie voor klanten:
Valse Covidien Nellcor SpO₂ Durasensor® (DS-100A) sensoren

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<table>
<thead>
<tr>
<th>Originele Nellcor Durasensor® (DS-100A)</th>
<th>Vervalste sensor!</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sensor</strong></td>
<td></td>
</tr>
<tr>
<td>Duidelijke onderscheidende eigenschap:</td>
<td></td>
</tr>
<tr>
<td>1) Glimmende afwerking - originele behuizing</td>
<td>1) Doffe afwerking - valse behuizing</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Veer van de sensor (zichtbaar als de sensor geopend is)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duidelijke onderscheidende eigenschap:</td>
</tr>
<tr>
<td>2) Eén enkele wikkeling van de veer</td>
</tr>
<tr>
<td>2) Drie wikkelingen van de veer</td>
</tr>
</tbody>
</table>

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Sensor comparison images:
UN Convention against Transnational Organized Crime

Organized criminal group (3 or > persons)

Serious crime (>4 years of prison)

Structured group (not randomly formed..)

=> The Medicrime Convention of the CoE
Definitions (confusion)

Counterfeit Medicines (WHO & CoE)

Falsified Medicines (EU)

Fraudulent Medicines (UNODC)
Key messages:

1) involve the regulatory
2) laboratory analysis (OMCLs!)
3) sensibilisation campaigns
4) multidisciplinary & multisectoral (transborder) collaboration (DRA-Police-Customs)
5) legislation (definitions) & enforcement

MEDICRIME CONVENTION (Council of Europe)
THANK YOU

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Head of Special Investigation Unit

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