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Glaxo Conspiracy against Discovery of Helicobacter Pylori

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Glaxo(SmithKline) earns over 30 billion dollars on anti-ulcer drugs Zantac sales while the pair of most prestigious sci. journals Nature and Science kept dead silence about the discovery of a less profitable curative treatment. It caused an approximately 10-years-long delay in introduction of new treatment resulting in millions extra deaths during that period.

This is a well known controversy (e.g. New Yorker, 20 Sept. 1993; Economist, March 5, 1994; Fortune, June 9, 1997). There was always little doubt that some sort of Glaxo conspiracy against H.Pylori discovery exists. Though its mechanism was never exposed. No attention has ever been paid to participation of Nature/Science editorial boards in this story.

I hope, I am not alone who feels slightly annoyed in recent years by strange sequence of paranoid media campaigns accompanying basically fruitless scientific or near-scientific projects. Nuclear winter, AIDS, ozone holes, global warming, cloning, human genome, Year 2k bug, SARS ... Importance of these themes and quality of science behind them is varying yet, certainly, there is something in common among them. In particular, it's hardly possible to get rid of an impression that all these campaigns are the result of tireless efforts of some groups of skilful image makers and public relations experts rather than that they were just spontaneous interest of independent press to some honest scientific publication.

Well, so what is wrong with this? Perhaps, the system of converting science into world news headlines is slightly corrupted today; but whether the problem is sufficiently important to talk about? Does it make much harm if influential academic gangs are so successful presenting their achievements, findings or just fantasies in this way?

The following story of 10-years-long misfortunes accompanying, perhaps, the most important practical breakthrough in medicine of the recent 20-30 years proves that it does. The trouble is that the opposite situation may occur. It may happen that a really important discovery of which the wide public really needs to be informed may fail to reach adequate publicity. Just because another gang does not need it...

The course of events

Though, perhaps, I may pretend to be a discoverer of Nature/Science dead silence on H.Pylori theme, I am not going to find any new facts in H.Pylori history. The purpose was to propose an **explanation** why it happened this way. Below is a very brief overview, for more detailed narrative look into other sources, for example, refs. [5,6, 11, 18].

So, in 1979 Australian scientist John Warren discovered a new spiral-shaped micro-organism (named later Helicobacter Pylori) living in human gastric mucous. During the next several years, with the aid from "enthusiastic young trainee" [2] Barry Marshall (who became later the major promoter of this discovery), he went through usual procedures also known as "fulfilling Koch's postulates" that should accompany such finding. That is, with modest amount of technical difficulties and with sufficient degree of rigor, they succeeded to grow new bacteria in culture, and demonstrated that the immediate pathogenic effect of this bacterium was the inflammation of stomach mucous which is clinically manifested as "superficial gastritis". It also turned out that from 30 to 50% of all humans harbor this bacterium.

Evidently, inflammation in stomach may lead to lots of various illnesses, as the website of "Helicobacter Foundation" [22] (founded by B.Marshall) put it, *"Practically any type of symptom between the nipples and the bellybutton could be coming from the stomach and could be caused by H. pylori."*

Yet, the most immediately apparent causal link exists between H.Pylori and development of stomach (gastric and duodenal) ulcers. From the common sense point of view, the idea that inflammation of

stomach mucous is at least a cofactor in subsequent developing of an ulcer seems obvious and should not carry the full burden of proof. Furthermore, very soon this link was confirmed by finding strong correlation between duodenal ulcers and presence of H.Pylori, for gastric ulcers correlation was less convincing. In 1983, high profile British medical journal Lancet published their report [14]. Antibacterial therapy for eradication of H.Pylori infection has been soon proposed and first clinical trials results showing its efficacy in healing duodenal ulcers and reducing relapse rates were available already by 1986-7. It seems obvious that discovery (and subsequent finding of a remedy to get rid of it) of a pathogenic bacteria living in stomachs of third of world population which may be the cause of a cocktail of serious illnesses was ENORMOUSLY important. Yet subsequent ratification of this discovery abruptly went awry. It is some fun to enlist objections and expressions of skepticism proposed against discovery of Helicobacter (I don't think that this is a complete list):

- Some researchers refused to believe that a bacterium may survive in highly acidic environment in stomach.
- Others said they can not believe that ulcers are not caused by acid and should be treated by antacids.
- After H.Pylori eradication treatment was available worries appeared that it may cause springing of antibiotic-resistant strains.
- It was stated that ulcers healing effect may be caused by bismuth itself contained in antibacterial preparation rather than by its antibacterial effect.
- It was also noted that bismuth produces dark stool, so the trials of efficacy of antibacterial therapy were not truly blind.
- A serious fault was detected: eradication therapy is not 100% effective and sometimes bacteria may survive; therefore a clever

question followed: what should do patients who failed to clear infection.

-- A recent invention. It was supposed that H.Pylori is not "all bad" and it may protect, for example, against reflux and even some forms of cancer.

There is little point to explore here in more details the importance and appropriateness of every objection. I guess, just this listing above is sufficient to get a notion that discovery of H.Pylori has encountered an inadequately inflated opposition. Indeed, this way or another opposition against H.Pylori discovery was incredibly successful. A survey conducted in early 90-ties (that is, 10 years after the discovery was made) has shown that 90% of people with stomach ulcers have heard nothing about H.Pylori [16]. By 1995, only 5 % of ulcer patients were being treated with antibiotics. FDA approved antibiotic treatment only in 1996 [10].

So, assuming that normally several years should be a sufficient time for any important medical discovery to be examined and re-examined and then officially ratified, it seems reasonable to talk about an approximately 10-year-long delay in introducing antibacterial therapy against ulcers.

Perhaps, to some extent this delay may be explained by a traditional obscurantism of medical profession. Yet, there was one additional component in this story prompting to think that this was not a sincere obscurantism.

In early 70-s, that is a decade earlier, another revolutionary method of anti-ulcer therapy has been found. A new class of receptors in stomach (the so called H₂ subtype of histamine receptors) has been discovered. It was shown that these receptors trigger gastric acid secretion when stimulated with histamine. Correspondingly, a new family of anti-acidic drugs (H₂-specific blockers) appeared soon which is able to bind to these same receptors blocking access of histamine to them thereby inhibiting secretion of acid in stomach. At first, the most successful drug was cimetidine (Tagamet) owned by Smithkline Beecham which was approved by FDA in 1977 and in 1982 it became the largest selling drug in the world [3]. In 1983 Tagamet was overthrown by a several times more potent substitute ranitidine (Zantac) owned by Glaxo which (as of 1998 data) became "the world's best-selling prescription drug" earning 32 billion dollars [3]. (Glaxo and Smithkline merged into a single company at the end of 2000, so here forth I will not distinguish contributions of these two companies into the story of H.Pylori referring to them as Glaxo for brevity. Similarly, I will sometimes forget participation of Science magazine as it seems to be a rather dull clone of Nature, then I see this story as mostly British.)

There is a fundamental difference in effects of using H₂-blockers and anti-bacterial therapy against stomach ulcers. H₂-blocking provides a temporary symptomatic healing: it just removes acid and gives time for ulcer self-healing. It does not remove the cause of disease, so 70% of first-time ulcer patients suffer a relapse even after a successful anti-acid treatment. Therefore, it is easy to estimate that the bulk of anti-ulcer drugs market was supplied by recurrent ulcers. In contrast, anti-bacterial therapy does not provide immediate effect, so now has to be used in combination with anti-acid treatment. Yet, it is a real cure as it does remove the basic cause of disease (or, at least, one of them). Practically it means that major effect of antibacterial treatment consists in reducing relapsing rate of stomach ulcers thereby stopping further consumption of anti-acid drugs.

So, at the time when H.Pylori was discovered, an existing methods of anti-ulcer therapy has began to yield enormous profits to drug industry. Adopting anti-bacterial therapy threatened to result in a several-fold reduction of the market of anti-ulcer drugs.

Naturally, this is a sufficient pretext for arising suspicions that drug industry might somehow stimulate developing of skepticism/obscurantism against H.Pylori discovery.

The strange story of too slow advancing of H.Pylori discovery to official recognition is not a finding of my own. From the very start, almost immediately after the primary publication in Lancet [15] this controversy attracted attention of lay press and, later, of academic investigators/historians.

First of all, apparently, discoverers themselves didn't hesitate to use strong words describing their misfortunes:

"Marshall was undeterred and grew increasingly angry with his colleagues. "He'd get up and tell us we were criminal for not eradicating the bacteria," says Dr.D.Y.Graham" [18]

"The nagging question is why it took so long for doctors to accept Marshall's discovery. For years the medical establishment laughed off Marshall's theory, even after he demonstrated it by drinking H. pylori and giving himself ulcers and even after other labs replicated his experimental results. Although that had happened by 1986, 'They didn't start treating H. pylori for another nine years,' Marshall says, still amazed by it all. 'Hundreds, even thousands of people must have died from ulcers who wouldn't have.'" [4].

So, I am not the first who said that ignoring H.Pylori discovery killed lots of people. I guess, "hundreds, even thousands" refers to yearly death toll for Australia. On the world-wide scale the talk obviously should be about millions. Linking drug companies and H.Pylori troubles also is not my innovation. This link is obvious and there is little point in assigning priority to anybody for finding it. Though, apparently, Barry Marshall again from the very start publicly marked this link. Though (at least) his present interpretation of this link is rather mild:

Was there a conspiracy to keep the H. pylori story under wraps? In some ways yes, but this was fired more by inertia and bad advice than by malice. [30]

As to me, first time I've seen an outline of this link in a unsigned article (editorial?) in "The Economist" back in 1994 [6]. I immediately felt distinct flavor of crime stemming from this story. A rare sort of publication for the lay press indeed. It was a really very high quality overview of a situation around H.Pylori discovery. The article was thoroughly devoted to an idea that delay with official recognition of H.Pylori discovery was very profitable to drug companies. Yet, somehow the authors failed to add several final concluding remarks directly accusing drug industry in any sort of participation in sabotage. The effect of 10-years delay in introduction curative treatment for this rather serious illness was also described surprisingly mildly; it was said that antibacterial treatment "makes people healthier" -- It seems to be some distortion of the fact that depriving people of this treatment left many of them dead.

Other lay press publications on H.Pylori theme that came later to my eyes [11,18] are also of the same incomplete type. Actually, some sort of sorrow for failure to make any direct accusation against Glaxo may be clearly seen in some.

Meanwhile, the only available today interpretation of H.Pylori misfortunes is that it was just a natural way of diffusion alien ideas in a traditionally conservative environment of medical profession. In my opinion, iconoclastic qualities of H.Pylori discovery are seriously exaggerated today in memoirs of gastroenterologists. There is no slightest sign of antagonistic conflict between acidic and bacterial theory of ulcers etiology. Acid and H.Pylori can well be cofactors in developing stomach ulcers. More realistic motive for developing the same sort of obscurantism might be "racial" considerations stemming from rural Australian origin of H.Pylori discovery. Again, this is not my idea, rare popular publication on H.Pylori does not mention a defective place where discovery was made.

Yet, any sort of natural obscurantism may be considered as a serious factor only at very early stages of H.Pylori story. In fact, the reaction of professional science to discovery of H.Pylori was very far from "wall of silence". According to statistics of scientific publications on H.Pylori collected in article by Thagard [5] already in 1989 there was over 100 publications on this theme. Assuming that there should be usually a year or two between the date of publication and the time when the work has been started, it may be taken that already in 1987-8 (if not even earlier) there were at least several dozen scientific groups working on H.Pylori. For any scientific finding such numbers always are interpreted that discovery is "widely accepted".

So, evidently, obscurant reaction to H.Pylori discovery did not last more than just several years. Starting with 1987-8 the most intriguing period in the history of H.Pylori began. From this time

and approximately until 1995-96 circulation of information on H.Pylori theme was somehow miraculously restricted by professional circles remaining almost completely unknown to wider public including government decision makers and stomach ulcers sufferers. Some alternative explanation instead of traditional obscurantism of medical profession is required for this puzzling situation.

Statistics of publications on Helicobacter

The table below lists statistics of publications in five most prestigious biomedical journals on H.Pylori theme over 1985-98 period. I have picked this statistics from Index Medicus counting entries under the topics listed in the first column. I did it with my own finger, so these data are not perfectly precise. A necessary explanation: at first, H.Pylori was considered to be a member of larger family of Campylobacters, so actual numbers of publications on H.Pylori for 1985-1990 in this table are significantly smaller. For comparison, the lowest row shows similar statistics for a randomly selected AIDS topic. From any point of view discoveries of AIDS and H.Pylori are practically identical. Both discoveries happened at almost the same time, both pathogens kill lots of people. At least, these discoveries are of approximately the same caliber. So the striking contrast in publication patterns on these two themes seems to be thoroughly an effect of propagandist efforts of academic gangs: negative in the case of H.Pylori and positive for AIDS.

	Total	Nature	Science	NEJM	Lancet	PNAS
1985 Campylobacter; C.infections	~200	0	0	0	17	0
1987 Campylobacter; C.infections	~250	0	0	1	13	0
1990 Campylobacter; C.infections	~500	0	0	2	26	0
1994 Helicobacter; H.infections, H.pylori	~1000	0	0	8	38	0
1996 Helicobacter; H.infections, H.pylori	~1600	0	0	9	37	1
1998 Helicobacter; H.infections, H.pylori	~3500	0	1	5	20	4
for comparison: 1996 HIV infections - genetics	~700	2	8	4	2	6

It is easy to see what this table means: Lancet published the original publication on discovery of H.Pylori and continued its support while Nature, Science and PNAS published nothing on H.Pylori theme. Actually, these data imply that these journals published ABSOLUTELY nothing, yet I don't know whether this extreme claim is valid: a more careful browsing is required for such fantastic claim.

Again, this is not my discovery that major scientific tabloids did not publish articles on H.Pylori. Every researcher in this field should be aware of this strange fact. Let's also point again to publication by Thagard [5, part 2] containing data which also seem perfectly compatible with this fact. According to this investigation, the first high profile academic publication on H.Pylori (except for Lancet) is dated by 1993 -- it was an editorial in NEJM. No Nature/Science publications before 1995 in this field also was not reported.

Obvious Assumptions

Thus we have now three nice facts in the history of H.Pylori discovery that seem to be interconnected:

1. Official ratification of the discovery of H.Pylori was delayed by approximately 10 years
 2. Glaxo/Smithkline had enormous financial interest in this delay.
 3. Nature and Science did not publish anything about this discovery
- I see an absolutely obvious way to assemble these facts into a single picture:

Discovery of this bacteria threatened profits of Glaxo/Smithkline, so some guys from these sufficiently influential companies might convince their friends in Nature/Science editorial boards not to publish anything on this theme. These two journals control conveying information on important biomedical discovery to the wide public, therefore their silence meant that information on this discovery for a long time circulated only in professional circles of gastroenterological researchers remaining unknown to potential users, government officials, medical practitioners, etc.

Let's consider whether any component in this chain of events looks unprecedented or impossible.

Though some shivering occurs when trying to imagine discussion of ways to discredit discovery of helicobacter at the meeting of Glaxo managers, certainly, behavior of Glaxo is not unusual in any way. First, it is hardly surprising that a commercial organization sacrifices health and even lives of its customers while fighting for such huge profits. From my communist youth I remember an appropriate quote from Karl Marx, something like "there is no crime that capital may hesitate to commit if profits exceed 300%. Even threatened by a gallows pole". And, second, there were indeed numerous much smaller similar precedents in pharmaceutical industry when drug companies strangle unprofitable research (browse archives of SCIFRAUD [13] for examples).

What makes this story different is its enormous scale. I even took from the shelf my university handbook on "Political Economy" [7] to see what most dreadful crimes of capitalism in the field of dragging scientific progress are known in the past. Alas, all I found were rather vague allegations that ATT concealed some important discovery by Norbert Wiener and that General Motors uses only about 1% of all patents it possesses putting the rest "under the cover".

Nevertheless, I have found one quite comparable story -- unfortunately, I never seen it narrated in other form than rumors, short anecdotes or slogans. There were some clearly motivated suspicions that in 1930-s German company I.G.Farben (Bayer) intentionally concealed discovery of the sulfanilamide releasing to market its more toxic and less effective patented derivative Prontosil which promised more revenues [8]. I.G.Farben was known for its support to fascism; its executives were tried after the WW2 as war criminals and this is indeed a very discouraging sign that even such notorious company nevertheless somehow escaped proper investigation of the story with Prontosil. Suspicions are "covered up" by information that Gerhard Domagk -- I.G.Farben's discoverer of Prontosil (or of something else?) was also a victim of fascism as he was arrested by Gestapo for receiving Nobel prize in 1939.

And two more specific considerations about Glaxo:

Apart from H.Pylori there were other threats to Glaxo's revenues from the Zantac sales. The most serious one stemmed from the generic forms that became legal after Glaxo/SmithKline patents expired in 1994-7. It is known that Glaxo fought unusually fiercely in courts in vain attempts to prolong its patents ("With such enormous revenue generating capacity, Glaxo has been extremely aggressive in protecting its patent rights with patent infringement lawsuits." [3]). There is nothing criminal in those attempts, yet with this information in view, it is rather difficult to believe that Glaxo might let unnoticed the discovery of H.Pylori.

Further, most recently a very nice publication appeared. *Mother Jones* printed in summer 2002 a fascinating article [17] on a new extravagant method of "fabricating mental disorders" to promote

sales of antidepressant Paxil by exactly this same drug company (Glaxo). With a multimillion fraudulent ad campaign Glaxo tried to convince healthy people that they have the mental disorder for which they licensed their new pill. It does not seem an absolutely previously unseen marketing method, yet, certainly, in terms of scale and cynicism Glaxo actions look as something rather outstanding.

Ok, there is little doubt that Glaxo is a sufficiently abominable beast -- perfect object for applying genocide allegations. Nature/Science editorial boards have significantly better reputation, though, of course John Maddox has never been a short of academic Mother Theresa. Then, their active participation in such nasty things seems to be a sort of perjury and looks much filthier. I mean that behavior of a thief stealing the purse is not nice but it is his work; yet if a policeman performs the same trick, it looks not as anything unthinkable but at least a little bit strange, especially if we don't see some really serious explanation why he is doing that. Perhaps, somebody else may have problem to believe that Nature's editors may do such nasty things. Fortunately, this is not the case with me; I have had rather remarkable earlier experience of dealing with these journals (browse my site plz) which was more than sufficient to give an overwhelming faith that Nature's editors are accomplished crooks.

Therefore, I absolutely do not pretend to be an impartial story teller here. I've got quite similar problem with my own rather important iconoclastic work on basic theory of vaccines [19] "perished" in 1990-91 by failure to publish it anywhere. After such start of my career, obviously, I was destined to seek a proof that I'm not crank and, to the contrary, my oppressors are all idiots and criminals (to be true, my vaccine work from the very start rather plainly implied such ideas).

I've made a number of other nice findings in this way. I've read a university handbook on immunology (printed in three editions totaling to about 500 thousand copies!) written by vice-president of Soviet/Russian acad.sci. where he failed to describe symptoms of smallpox and to write down mass action law equation [20]. I've also found out that modern "experts" on history of immunology (i.e. Nature/Science reviewers of new controversial interpretation of L.Pasteur's life and work) are not acquainted with almost official biography of L.Pasteur by Vallery-Radot and even with bestseller "Microbe Hunters" by Paul de Kruif [21]. For more stories browse my site plz.

Indeed, I was digging in this direction for quite a long time; so it is little wonder that I have found this story. Though, it is slightly more monstrous than I might ever expect.

I don't have any motivated assumptions why Nature/Science might have decided to suppress H.Pylori discovery. Just wild guesses. Perhaps, there might be some exchange for Glaxo financial backing some idiotic campaign conducted by Nature/Science group. For example, human genome project seems suitable. Though, I prefer not to think that such sophisticated relationships took place. There is a story that prompts to think that most ridiculously simple things might work in this case. In 1996 Swedish "Dagens Neuhatter" published allegations of most trivial sort of corruption against another major distributor of scientific fame -- Nobel committee. It was claimed that Nobel prize of 1986 (to Rita Levi-Montalcini for the discovery of nerve growth factor - NGF) was actually bought by Italian drug company Fidia which spent \$9 million in several years on leisure tours, profitable lecture invitations, etc. for members of Nobel committee. Again, like in story with I.G.Farben and Prontosil no adequate investigation has been conducted. The scandal abruptly abated after the Nobel committee "refuted" allegations of corruption. Despite of very serious discrepancies between the content of allegations and what has been "refuted" [9].

And let's mention a pair of recent publications suggesting two other plausible forms of relationships between academic gangs and scientific editors:

Guardian of 1999 [24]: *"The editor of one of Britain's leading medical journals, the Lancet, says he was threatened by a senior member of the Royal Society, the voice of the British science establishment, that his job would be at risk if he published controversial research questioning the safety of genetically modified foods."*

Another scenario [28]: several experts of MCA (British drug licensing institution) were found to be shareholders of Glaxo. I don't know whether it is illegal for Nature editors to have similar interests?

The focus of evil

Silence of Nature/Science pair on the H.Pylori theme seems to be a firm fact. Now, what I am going to do is to argue that this silence was indeed the immediate cause of failure to reach adequate publicity for H.Pylori discovery and therefore, that it was the cause of millions of deaths. This is the most important point as it is the answer to question who is the murderer.

Tracing corruption links between editorial offices and drug industry and proving that Nature/Science silence was bought by Glaxo is also an interesting problem. Yet, understandably, it lies beyond my faculties. So, it seems reasonable just to name the murderer and to leave all pleasures of dealing with its masters to more competent organizations.

The rationale to think that reluctance of Nature/Science editors to publish anything on H.Pylori theme was the immediate cause of 10-year delay in official recognition of this discovery is quite obvious. To start with, I may recall a funny saying by Trofim Lysenko frequently mentioned by our professors when I was a student. Trofim Denisovich used to ridicule the popular view that all that a researcher has to do after he completed some important work is just to "crew out" his discovery (not sure about translation -- the sound produced by a cock was implied here.) Obviously, important work must somehow attract attention of some rather stupid decision-makers who hardly might happen to be able to read scientific literature. In modern terms, it is said that you should "sell" your science. Trofim Denisovich preferred to recruit professional propagandists to invent an appealing Marxist ideological base for his works that had to please ears of communist leadership (thereby sending some of his stubborn opponents to death camps). Naturally, other methods might also serve well in Soviet Russia for this purpose; you might take to your laboratory several KGB generals' relatives, or you might cure several pimples on the ass of a Politburo member etc.

The main trouble was the same as in the modern biomedicine -- publication of an important work in a professional journal was a perfectly meaningless action. And the basic cause of this sad status quo is the same -- govt. decision-makers nor sci.correspondents of mass media do not read basic scientific literature. It is understandable. In fact, both politician and sci.correspondent physically can not investigate for months or years a single great problem (like professional scientists do) and then at the end of the times to enlighten his boss with his finding. Instead, what they need is a constant flow of materials -- perhaps, several standard silly stories a week -- from a credible source of information. And that is exactly where Nature/Science sweet pair succeeded most. They do provide a very convenient weekly selection of several dozens well-written new publications with tested reference lists, each supplied with easy to understand summary and sometimes with an extended editorial comment. With such material, qualified correspondent is able to write in just a pair of days a safe stupid story on any subject that he heard nothing about before.

Nature/Science services also remove the greatest fear of every scientific bureaucrat to be fooled by some mad inventor being engaged in promoting his bullshit. If this bullshit is taken from Nature/Science then, first, your boss can not scorn on you as you have used a credible source of information; and, second, you'll never be alone who ate this thing.

I am not sure when and why it happened that this strategic bridge between science and wide public has been monopolized by Nature/Science duet. Though, I may suggest a nice idiotic idea. Perhaps, the secret of their success was using COLOUR. Indeed, let's take Lancet and Nature; it is hardly arguable that Nature today is a much more politically powerful edition while the still prestigious Lancet seems targeted at purely professional readership. The most obvious difference between Lancet and Nature is color -- Nature is much more beautifully illustrated; one time J.Maddox even began to include ads with half-naked girls on his pages :) Very simple and stupid, but, quite probably (IMHO), adding vivid colors to scientific publications was a quite effective method to catch imaginations of near-scientific bureaucracy.

Actually, I think Nature/Science would not deny that controlling bridge between science and media/government people is their primary goal. Yet, the problem is to believe that their success in achieving this goal went so far. And that Nature/Science indeed have got so total control that they are able to block even such important discovery not by an active campaign but by just doing nothing. It seems that there are numerous independent popular newspapers, TV news programs etc. which were able to destroy boycott of H.Pylori discovery with a single angry publication. And it also appears that stomach ulcers is a disease which was most suitable to expect support of this sort. Stomach ulcers hit about 10-15% of all people sometime in their lives more usually in their adult ages. So, among interested patients there are thousands influential journalist, editors, politicians and top scientists who could confront boycott successfully and without any risk for their careers or reputation.

In fact, H.Pylori discovery did get support of this sort. Their primary publication in Lancet of 1993 has been spotted by *National Enquirer* which ran a cover story on H.Pylori in November 1984, soon *Cincinnati Enquirer* also published something (I did not see those publications). Barry Marshall got financial support from Procter & Gamble. That is, as I was already stated above, H.Pylori from the very start was not in a perfect trouble.

Lancet, two major American tabloids, Procter & Gamble -- H.Pylori discovery had very serious support. It is almost unbelievable that Nature/Science are so powerful that they could bury such thing doing actually nothing.

Fortunately, an enlightening publication in NYTimes has at last came to my eyes recently [23]:

More than 20 leading scientific journals have made a pact to censor articles that they believe could compromise national security, regardless of their scientific merit. The policy, announced yesterday at a scientific meeting in Denver, is one of the first concrete steps to emerge from a fierce debate over how to balance the ethic of openness that has long been the foundation of American science with calls from some government officials for greater secrecy after the anthrax attacks in 2001. "We recognize that on occasion an editor may conclude that the potential harm of publication outweighs the potential societal benefits," reads a statement endorsed by the journals' editors, as well as some scientists and Bush administration officials. "Under such circumstances, the paper should be modified or not be published."

The journals Science, Nature, The Proceedings of the National Academy of Science and several others - which together constitute a primary vehicle for spreading scientific research around the world - plan to publish editorials supporting and explaining the policy this week.

That's it! Consortium of sci.journals lead by Nature/Science sweet pair announce that they are able to hide away from terrorists' peering eyes any scientific discovery "regardless of its scientific merit". I still don't know how it may be done. Here in Moscow some time ago we also had such central censoring organization (Glavlit): every

paper manuscript had to get its visa to be published. But it was officially a KGB department which was not functioning alone; every scientific institute also had its own KGB branch which also stamped visas. Amateur and professional informers here and there... Then, any sort of attempt to fool this system was considered state crime. Without such multilevel structure this system can not work. Though collaboration with secret services is quite explicitly implied by quoted above NYTimes publication, what they suppose to do with disobedient scientists? Just threats like in a story with Lancet editor [24] or something more effective? What they suppose to do with Internet?

This interesting "antiterrorist" initiative is closely relevant to the present investigation in many relations. The most obvious contribution to my allegations resulting from this information, is that top scientific editors announced themselves that they are able to perform an order of magnitude more difficult trick than I try to allege them to do in the present story with H.Pylori. There can't be two opinions that escaping terrorists' awareness is a much more difficult problem than distracting attention of fat and lazy government officials or scientific correspondents of corporate media.

The final step in getting official recognition by HP discovery gives a plain demonstration how Nature/Science monopoly on scientific works:

"The world changed with a January 1993 paper in JAMA" says Graham. "It had no new information but enough data to say that if you cure HP, you cure ulcers." Graham says Senator Edward Kennedy, whose main science advisor is a gastroenterologist, then pushed for a definitive analysis of the debate, hoping to cut the cost of treating Medicaid patients with ulcers. [ref.11]

So, there are at once two bottlenecks created by insufficient publicity. First, standard and essentially trivial discovery of H.Pylori is considered as complex professional problem. So without rare luck of having gastroenterologist as science advisor there was little chance to be aware of the problem. And, second, the name of Kennedy gives a startling estimation of what caliber the politician should be to have the courage to interfere into such controversy. As a result, we have only one senator speaking up for ready to use cure against ulcers instead of a hundred advising to use condoms against AIDS. Though, as I said above, these are practically identical discoveries.

The rest of speculations about Nature/Science guilt is quite predictable. I have just several other simple cases demonstrating that this method of burying scientific truth with dishonest high-profile publication works perfectly, that similar practices are actively used by academic mafia and that nobody has ever been punished for such tricks. I guess, these small stories should illustrate incredible insolence and effectiveness of abusing editorial power therefore also prompting to believe that this method alone might bury H.Pylori discovery as well.

John Hewitt -- cell capping [25]

This seems to be a classical story - very simple and idiotic. There was some esoteric experimental phenomenon called cell capping which is rather difficult to be narrated in a brief form. Several competing explanations have been advanced for this phenomenon. First, there were cytoskeletal model and flow model, then John Hewitt proposed another one, wave model. He even published it in a quite respectable J. of Theor. Biology. Yet, then Nature and Science both published articles reporting experiments claimed to establish validity of cytoskeletal model by eliminating the flow model. Those experiments did not not exclude wave model, it just was not mentioned. Naturally, it was even worse for Dr. Hewitt -- indeed, who would believe that his theory was just forgotten by cunning authors of those articles; if it was so completely dismissed in Nature/Science publications, most likely it means that his theory is so totally rubbish that it doesn't deserve even to be mentioned in really serious scientific publication.

Where Dr.Hewitt might direct his complaints? Of course, the only remaining power in this case were Nature/Science editorial offices. But they refused to correct anything. And that was the end - wave model was buried and nobody has given any explanation why.

ORI thieves [27].

In February 1998 I have published a very nice new casuistic method of estimating the overall percentage of fabricated data in scientific literature. Not perfect, yet in certain sense significantly more conclusive than results from any other available approach. Several time I contacted on its matters "Office of Research Integrity" -- supreme US institution dealing with scientific misconduct in American biomedicine. They always responded (as I can guess) like white master should talk to his niger asking food for his work. Yet, rather surprisingly, in March 2000 I've got an e-mail from Alan Price, director of investigative division of ORI requesting full details about my work. I immediately did not like it, though honestly provided him with all requested information about current state of my work.

No further correspondence from ORI followed; And then, in half a year, in November 2000 ORI conducted a conference where a new grants program targeted at obtaining some better estimates for the rate of scientific misconduct has been announced. In fact, ORI demanded a remake of my work -- requested qualities of supposed better estimates PRECISELY coincided with qualities of my work. Naturally, ORI pretended that my work does not exist or they know nothing about it.

Of course, I've written several complaints accusing ORI in plagiarism and fraud. Of course, they all were ignored. An interesting reaction from Dept.of Justice - my complaint was redirected for investigation to Alan Price!

Actually, this my story resembles the case of John Hewitt -- high profile publication blatantly denying existence of competing work usually buries it. It is less illustrative in this respect as so far I can't admire how elegantly and neatly ORI has buried my work. Yet, it is perfect to demonstrate bureaucratic insolence in modern science; I do admire how daring were ORI thieves in my case. Indeed, most of my contacts with ORI, including their request of information on my work were publicly mirrored in SCIFRAUD maillist - the place swarming with people who are professionally interested in academic thieves and also frequently visited by ORI officials themselves. Surely, ORI knew in advance that I'll spot their theft very soon and that I'll object to it. Therefore, ORI thieves also firmly knew that their theft would be considered legal. And, actually, I think they are right; such things are de facto legal in modern science.

This my story unequivocally proves whether there exists any public control upon academic mafia. If even #@%^& academic cops demonstrate such incredible insolence, it becomes easier to guess whether real beasts might be afraid of anything when they were going to resort to similar methods.

Nobel corruption [9].

This story was already mentioned above -- In 1996 Swedish newspaper "Dagens Neuhatter" published allegations of unprecedented corruption in Nobel Committee. What I want to add in the present context, is that a surprising peculiarity was spotted when I first time reported this controversy to SCIFRAUD maillist (thanks to P.Dalen). Internet search engines do not brought too many publications on this theme yet most of them were in languages other than in English. It is very unusual for Internet; Especially because distributing Nobel prizes is mostly an entertainment for anglophonic part of the world.

Actually, I did not get too deep into investigating this story, yet I see a simple explanation for this peculiarity. IMHO, the bottleneck was again the Nature/Science monopoly on conveying science-related information to mass media. If these two journals did not published anything on this scandal, most likely the rest of Anglophonic media would find no other "credible" source of scientific information. Again, this interpretation of this story is just an obvious suggestion, yet I have very little doubt that it is true. Objections would be greatly appreciated if anybody knows any Nature/Science

informative publication on this story or any comprehensive reproduction of "Dagens Neuhatter" materials in Anglo-American media.

I think, this Nobel corruption controversy might be a very serious scandal. If it really was so smoothly dismissed by Anglo-American media thanks to Nature/Science dead silence on this story, it is an excellent proof that similarly this method worked equally well when H.Pylori discovery was stifled.

Dewey McLean -- Dinosaurs' K-T extinction. [26]

In the mid-70s, Nobel physicist Luis Alvarez claimed that he has found an ultimate proof of asteroid impact theory of dinosaurs' extinction. His claim was based on the geological field finding made by his son, Walter Alvarez who discovered a thin layer of clay at the boundary between the Cretaceous and Tertiary sediments (marking the geological time when the K-T extinction happened). This layer of clay was unusually rich with iridium prompting to assume that this iridium was brought to Earth by iridium asteroid or comet. Then Dewey McLean argued that this same iridium might likely been released by the Deccan Traps volcanism in India. In fact, iridium was not the only phenomenon shedding light on K-T extinction. It appeared that at this point we might remain in total uncertainty on the cause of dinosaurs' extinction for another thousand years.

Yet Luis Alvarez was a too old and wise scientist to restrict his scientific activities by "crowing out" his discovery. This seems a very nice small-scale model of H.Pylori story. The huge weight and influence of Louis Alvarez in the small quiet field of paleobiology is quite comparable to influence of Glaxo on biomedical science. Therefore it is likely to expect that there should be used some basically similar methods of burying opposition by Alvarez and by Glaxo. The difference is that Alvarez seems enjoyed to see how big and powerful he was and liked to demonstrate it to others; so, what Glaxo might do only in deepest conspiracy, within the more hilarious K-T extinction controversy proceeded in a more blatant manner.

Alvarez conducted a very unusual (for present days) Lysenko-style campaign of threats and public insults to his opponents:

...there were dark rumors circulating that Alvarez would stop at nothing to stifle dissent. Even now, a number of vocal critics of the asteroid-impact theory are firmly convinced that the late Nobel laureate was pulling strings behind the scenes—and that the price of hewing to what they perceive as the scientific truth was loss of access to news coverage, grant money, the leading journals, and even tenure. [29]

Most pleasantly for my present investigation, according to Dewey McLean [26] the final solution to the K-T extinction problem was put again by Nature/Science, who vigorously supported asteroid impact theory. Moreover, John Maddox personally expressed his expert ultimate decision on this debate: «Luis and Walter Alvarez appear to have proved their original case that the massive extinction at the end of the Cretaceous period was caused by the impact of some extraterrestrial object.» (Nature, 1984, v. 308, p. 685; quoted from [26]). It becomes obvious from this episode that this ubermenschlich editor VERY significantly overestimated his power and qualification putting such stupid solution to such complex problem. Nevertheless, it worked -- Alvarez successfully suppressed opposition.

Never ending story?

Misfortunes of H.Pylori discovery are in the past today. It has proliferated into a huge business promising again multibillion contracts for drug companies. Naturally, now it pursues its own vested interests. It is easy to calculate what is the major threat to profits from antibacterial treatments -- a successful vaccine against H.Pylori (that may cost below 1\$ per shot) is a much more terrible dread for H.Pylori industry than H.Pylori discovery was for Glaxo. That is why it was so nice to see this expression of thoughtful doubts in feasibility of H.Pylori vaccine on the web site of

B.Marshall's H.Pylori foundation [22]:

"We don't know whether a vaccine for H. pylori is possible. Nature has been unable to eradicate the organism from the human body after thousands of years of evolution."

Absurdity of this speculation seems to resemble expressions of doubts that any bacteria may survive in highly acidic environment of stomach that Dr.Marshall had pleasure to listen 20 years earlier.

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Comments

He-he, a year has passed since I've published my insinuations, yet I still have to see a single link to this my web page not saying of paper publications. Actually, it confirms my theories: information about corruption links of Nature/Science editors may be spotted by anybody only after this information is disclosed by Nature/Science themselves.

Nevertheless, I have got several informative comments from a number of scientists and major participants of H.Pylori story. At first, I even received a pretty kind note from Barry Marshall ("Maybe you are a little harsh but no doubt it will get people thinking."). Apparently, it was an ill-considered premature letter - reanimating this scandal does not look today profitable to H.Pylori industry. So, very soon Dr.Marshall expressed a more reasonable loss of interest to my work ("*I have so much work on-line from emails that I have set your letter aside...*"). Significantly more interesting comment came from David Graham - major opponent of H.Pylori discovery who made at late stages of HP story a very serious positive contribution promoting HP discovery to final official recognition (he was the author of the first editorial in NEJM on H.Pylori in 1993 and it was him who told to senator Kennedy that there is at last sufficient data to say that ulcers is caused by H.Pylori [1]). Naturally, his comments on my findings were clearly negative ("*I think you have made a spurious correlation... Your correlation is retrospective and misses the actual flavor of the issue... I think that your hypothesis deserves to be neglected...*"). Yet he also appended to his letter a file with his own interpretation of HP history which contained a so obvious falsification that on the aggregate his letter definitely strengthened confidence in appropriateness of my allegations against Glaxo. I also greatly appreciate other comments. Further, I group them by major points of my investigation that seem to be worth discussing.

1. Whether Nature/Science did publish nothing on H.Pylori discovery?

As a silly cowardly (and not too diligent) scientist I was slightly afraid to commit a trivial mistake declaring that there were no publications in Nature/Science on H.Pylori theme for so many years. Obviously, this risky claim might be easily disproven by pointing to a pair significant articles. Now I can sigh with relief - I have not received a single objection or even doubt concerning this statement. So, this question is closed now.

2. Why Nature/Science published nothing on H.Pylori?

Searching for all possible answers to this question was not primary objective of my article. My explanation of Nature/Science silence by corruption links with drug industry is plainly obvious. It is based on the common knowledge that if some "independent" institution (or govt. official, or local policeman, or anything else) for many year shows some activity (or inactivity) significantly favouring some commercial organization it is usually explained by corruption and NEVER by mere coincidence. I have just wild guesses what specific sort of corruption link might exist between Glaxo and Nature/Science editors. It is clearly indicated in the main text. Nature/Science editorial boards might try to present an alternative decent explanation for their dead silence on HP discovery. I have asked Nature/Science editors for any comments on my investigation; naturally, they vouchsafed me no answer.

Of course, it is easy to make a nice nelly explanation that Nature/Science did not publish anything on HP theme because somehow it was not exactly their theme. Yet it seems pretty hopeless. From one viewpoint HP discovery is identical to discovery of AIDS virus (to which Nature/Science printed paranoid amounts of publications) and from another viewpoint it is identical to discovery of H2 blockers on which the original article by Sir James Black was also published in Nature (236:385-90, 1972). Perhaps,

here I also ought to quote some grounding documents with mission statements of Nature/Science proving that disseminating objective information on HP discovery was their basic duty, yet it seems plainly obvious and, again, I am not a too diligent scientist. Help would be greatly appreciated.

I don't know significant anecdotal stories on rejections HP articles from Nature/Science. Though Dr.Marshall informed me that his HP article was rejected from NEJM in 1987 - it also proves the point.

3. How great was the contribution of Nature/Science silence to HP discovery misfortunes?

The "antiterrorist initiative" of sci.journals consortium lead by Nature, Science and PNAS is an undisputable proof that the service of covert stifling of "unpalatable" scientific research is presented in their pricelist.

The fact that this service was activated against HP discovery also does not deserve any discussion.

The question remains whether boycott of HP discovery by Nature/Science was the primary cause of HP discovery troubles. Perhaps, there were other more important factors.

I have not found such factors. There is only one available alternative explanation that delay in recognition of HP discovery was just a natural way of diffusion alien ideas in a traditionally conservative environment of medical profession. Apparently, this interpretation of HP story originates from David Graham and, in the absence of any definitive ideas on what actually happened with their works from Warren/Marshall it should be considered an official version of HP story.

As I wrote in the main text, I can well believe that this "natural obscurantism" interpretation of HP troubles may be valid only for first several years of HP story. Extending this explanation for the whole 10-year-long period of HP misfortunes requires rather awkward falsifications. The most important one may be seen in the following listing [by D.Graham, ref.2] of requirements for establishing the cause of stomach ulcers:

Table1.

Some requirements before the hypothesis that Helicobacter pylori could be accepted as the cause of peptic ulcer disease

Ability of reliably culture the organism

Reliable diagnostic tests to confirm its presence

Reliable treatments

Randomized clinical trials showing benefits of treating the infection

Integration of the new knowledge into the established data base

Dr.Graham was quite consistent in saying that reliable treatment is a requirement for establishing infectious nature of ulcers; here is what he advised to senator E.Kennedy, (obviously, publication was on "reliable treatment"):

"The world changed with a January 1993 paper in JAMA" says Graham. "It had no new information but enough data to say that if you cure HP, you cure ulcers" [ref.1]

This is a classical "sentence first - verdict afterwards" trick.

Establishing the infectious etiology of ulcer disease and finding a reliable treatment for it are absolutely different problems! It is the most fundamental paradigm of medicine: at first the cause of the disease should be identified and then the knowledge of this cause draws more researchers and money, facilitates and accelerates further search and evaluating effective treatments. Identification of infectious etiology of stomach ulcers failed to get adequate publicity and therefore official recognition and THAT was the primary trouble in HP story.

Of course, there were also lot of troubles with official approving the effective antibacterial treatment. Actually these are the troubles whose existence Dr.Graham tries to deny.

In this paragraph, I should also express great thanks to Peter Hinkle and to Michael Wynne for pointing to an error in the original version of my work. I wrote that practising doctors were also underinformed on HP theme thanks to Nature/Science silence. Of course, I was wrong. Practising doctors rarely read Nature or Science, much more often they get professional information from

other sources. So, the silence of these two journals on HP theme did not influence significantly the supply of information on H.Pylori to this group of people. I was misled by statements that in early 90-es only about 5% of ulcers patients get antibacterial treatment. At first glance, this number means that only slightly above 5% of doctors knew about this treatment. Surely, if 5% of doctors practically use the new therapy which is tainted by some vague discussions and which is not approved officially, of course it means that closer to 100% of them should have been informed about it.

It is not an important error. Conclusive confirmation of antibacterial treatment required conducting long-term statistical study. And though hypothetically every practising gastroenterologist might decide for himself whether he should use antibacterial treatment (read the HP publication - and the drugs were on the market) it could be just a sort of gambling. In reality, practitioners could not influence the fate of HP discovery regardless of whether they were informed about it or not. They had to wait for an "officially" approved approaches.

4. HP Vaccine

This is an off-topic for the present investigation, yet, quest for HP vaccine seems to be today the most important practical problem in HP research. Than, I also have some special interest to vaccines because of my [old iconoclastic works](#) on basic theory of vaccines. So, I've sent 20 e-mails to authors of sci.publications on HP vaccine asking for comments yet, alas, I have got nothing in response to speak of. Unfortunately, it supports again my old sneaking suspicions that vaccinology is governed by idiots.

Perhaps, I may express my disappointment in a form of trivial opinion that HP vaccine research has collapsed into the same meaningless parasitic form as it happened with AIDS vaccine. Here is a short quote from a big 6-year-old review on HP vaccine. I guess, nothing changed since that time. (Note a striking similarity to AIDS rhetoric):

A convincing body of data now exists supporting the potential for successful immunization against H pylori. However, we are still at a preliminary stage in clinical development. The best immunogens, the best mode of presentation, the number of doses needed, optimal age at immunization, expected benefit, cost-effectiveness, and other factors involved in vaccine development require further study. The complex pathogenesis of this infection, including the presence of antigens on H pylori shared with the host (a mechanism for immune evasion), demands novel approaches to the development of a final vaccine formulation. [ref.3]

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