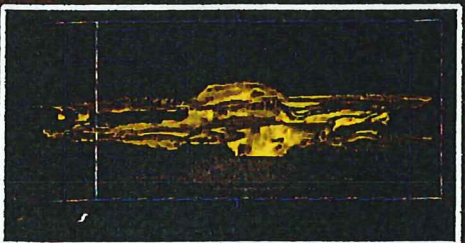
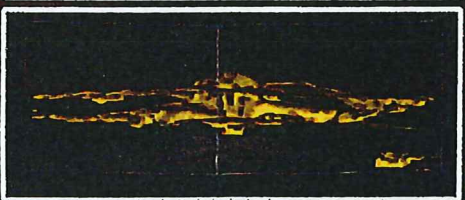
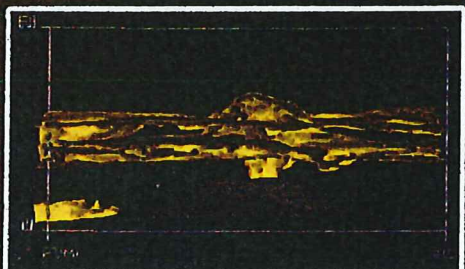
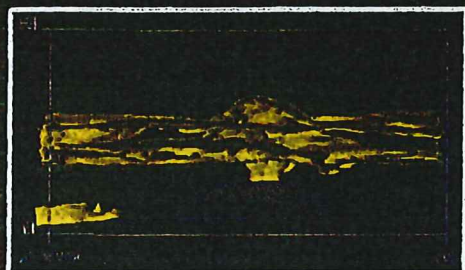


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Japan's innovators take patent deals to court

David Cyranoski, Tokyo

Not long ago, the typical response of a Japanese researcher who thought that their employer had stolen their ideas would have been a brief shrug of resignation. Often, they would have been content to entrust their fate to the company in exchange for gradual promotion over a lifetime of employment.

But times are changing, and these days more and more peeved innovators are opting for a different response — they're calling in a lawyer.

Industrial researchers in Japan are awarded patents as individuals, but they customarily sign these rights over to their employers. Patent law holds that researchers must be awarded "reasonable compensation" for patents that become lucrative.

The law doesn't say what "reasonable" means. But after last year's widely publicized lawsuit filed by Shuji Nakamura, inventor of the blue light-emitting diode (see *Nature* 412, 844, 2001); more researchers are going to the courts to find out.

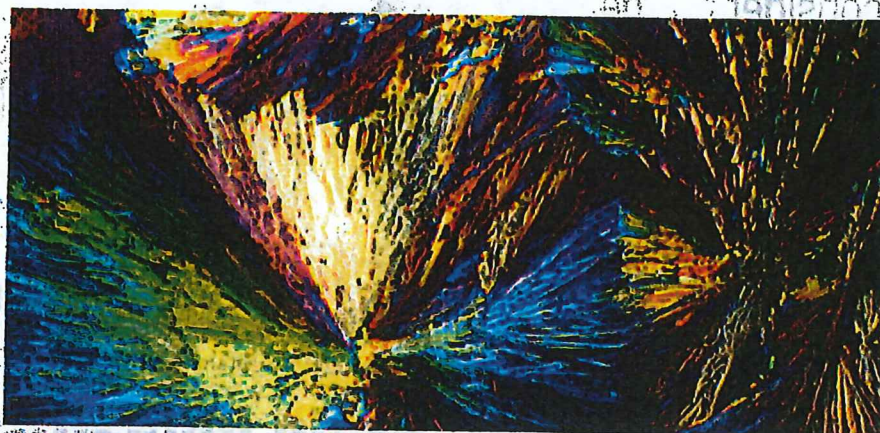
In a lawsuit filed last month in the Tokyo district court, for example, Masayoshi Naruse says that the ¥10 million (US\$80,000) he received in 2001 for his work on the artificial sweetener aspartame does not match up to the ¥23 billion that his former employer, Tokyo-based Ajinomoto, reportedly made from licensing the product in the United States between 1982 and 2000. His suit demands half of the profits made on the sweetener — with ¥2 billion as a first instalment.

In another lawsuit filed in the same court on 2 October, Hiroshi Ogawa took issue with the ¥100,000 he received for his patent on processing the vitamin-like substance inositol. Ogawa says that the patent, on a procedure to extract inositol from corn, has earned close to ¥2 billion for his former employer Shikishima Starch and its parent company Showa Sangyo of Tokyo. Ogawa is claiming 80% of these profits on the basis that the company actively sought to sideline his work. "They resist anything new," he says.

Ogawa and Naruse are also claiming that they never legally transferred the patents to their employers and that control of the patents should revert to the discoverers.

In each case, the defending companies claim that they received the patents legally, and that the compensation given was fair. Ajinomoto says that Naruse's award was calculated as a percentage of profits according to a company compensation formula established in 1999 — and that his patent is just one of many related to the discovery and production of aspartame.

The cases reflect a new assertiveness on the part of Japan's industrial researchers.



Sweet crystals of success: but aspartame's inventor claims he was short-changed by his employers.

"The problem is that nobody has used this patent law to get reasonable compensation from a company until now, either because the researchers were very loyal to their companies or because they didn't understand patent law," says Nakamura, now at the University of California, Santa Barbara.

Words but no cash for US agencies

Geoff Brumfiel, Washington

The US National Science Foundation (NSF) got some good news last week, when a House committee proposed a 13% increase in its funding for the 2003 fiscal year, which began on 1 October. But, for the NSF and every other agency of the federal government, the big question is when a gridlocked Congress will get around to passing any budget at all.

As lawmakers return to their home states for this November's elections, the federal government faces its biggest budget log-jam in years. None of the 13 appropriations bills that fund the government has been agreed by Congress and signed by the president. All agencies are instead getting money at 2002 levels under a continuing resolution. So, for agencies such as the National Institutes of Health (NIH), which had been anticipating a huge \$3.7-billion funding increase, plans for spending the extra money are on hold.

The budget is stalled because neither the Democrat-controlled Senate nor the Republican-led House can agree spending levels that fall within the overall budget proposed by President Bush back in February.

At the head of the snarl-up in the House is the labour, health and education bill, which funds the NIH: the House leadership wants it to pass at the level suggested by President Bush, but Democrats and some moderate Republicans say it doesn't contain

As researchers become more aware of the profits to be made and less reliant on lifetime employment, Japan's employers are changing their approach. In the past few years, many companies, including Honda and Toyota, have revamped their reward systems to give researchers greater motivation.

enough money to meet their various spending priorities.

Elias Zerhouni, director of the NIH, told Congress last week that a long-term continuing resolution will delay construction of a new clinical centre on the NIH campus and stall its \$1.5-billion plan for bioterrorism research. Also, says Pat White, of the Federation of American Societies for Experimental Biology, it could cut by a third the number of new grants that the NIH can make in the coming year's first round of awards, due in December.

Continuing resolutions will nonetheless probably extend at least until after the elections. The old Congress may then seek to resolve the budget in a lame-duck session before the new Congress arrives in January — but the progress of such a session will hinge on the election outcome, and it is quite possible that the flat funding could continue into January or beyond. "The wheels have come off the budget process," White says.

So the proposed NSF increase — all large advance on the 5% hike proposed by President George Bush in February (see *Nature* 415, 564, 2002) — leaves science lobbyists only moderately thrilled. "All of us are pleased with the House's recommendation," says Samuel Rankin, chair of the Coalition for National Science Funding, which advocates doubling NSF funding over five years. "But it won't mean anything if there isn't a budget."

小川氏と成瀬氏は、特許は合法的に会社へ譲渡したものではなく、また特許の管理は発明者の所有に戻すべきである、と主張している。

それぞれのケースにおいて、被告である会社は特許は適法に会社が得ており、与えた報償は公平なものと主張している。

味の素は、成瀬氏の報償は1999年に制定した社内報償制のフォーミュラに従い利益の比率で計算されたもので、彼の特許は多くの関連する発見とアスパルテームの製造に係わる特許の一つに過ぎないと、言っている。

これらの係争は、日本の企業内研究者の一部に現れている新たな主張すべきは主張するという断言性を反映しているものである。

「問題は、研究者が会社に対して非常に忠誠を尽くすものであったことや、研究者の特許法への無理解の為に、この特許法を使ってこれまで会社から合理的な報償を得ようとした者がいなかったことにある。」と中村氏は言う。

研究が特許から得る利益についてよく知ることになり、また終身雇用に頼らなくなればなるほど、日本の雇用者は（研究者への）アプローチを変えていくことになる。過去数年の内に、ホンダやトヨタを含む多くの企業では研究者に対しより大きな動機付けを与える為に報酬システムを改訂してきている。

以上

花のお江戸の「東京地方裁判所」に、発明の対価を求めて、提訴した3人、中村青色ダイオード（ノーベル賞受賞者）、成瀬（味の素の中央研究所長、アスパルテームの発明）、それに、鈴鹿の田舎の無名な小川（イノシトールの製造方法の発明）のなかで、小川だけが、発明から提訴までの期間切れ（時効）であるとして、敗訴はしたが、しかし、この、3人の発明対価訴訟によって、それ以来、日本の発明者に対する、待遇が、世界なみに大きく改革されたことで、満足している。

また、偶然にも、この、世界の科学誌「NATURE」に、ノーベル化学賞受賞 田中氏が、掲載されたのも、一つの思い出となった。（小川）