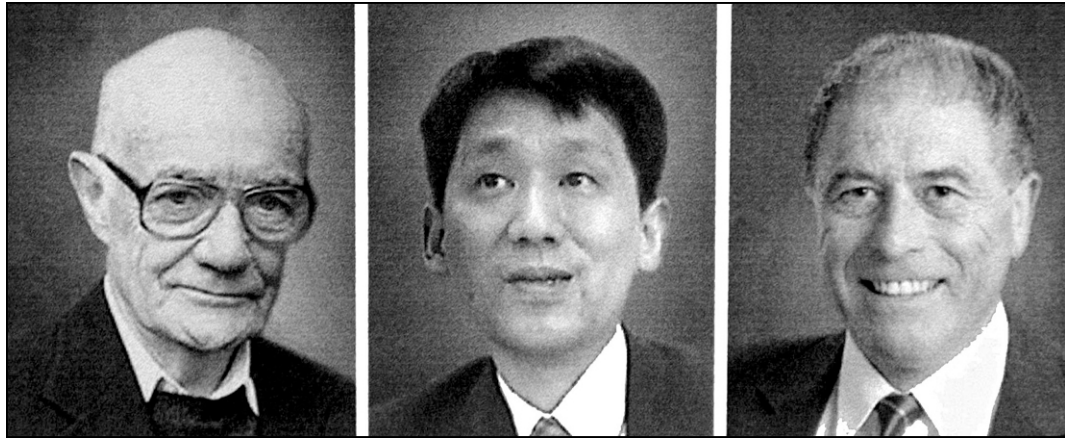


# Protein gurus win Nobel Prize for chemistry



John B. Fenn

Koichi Tanaka

Kurt Wuehrlich

PHOTO: AFP

AFP, Stockholm

A trio of American, Japanese and Swiss scientists yesterday won the 2002 Nobel Chemistry Prize for turning chemical biology into a powerful tool against diseases such as Alzheimer's, mad cow and some of the deadliest forms of cancer.

John Fenn of the United States, Koichi Tanaka of Japan and Kurt Wuehrlich of Switzerland helped create the new science of proteomics -- the study of how proteins, the stuff of life, interact with other substances in the cell, which is the likely basis for the next generation of super-drugs based on the human genome.

This field of research has exploded in the past few years, with enormous implications for the pharmaceutical industry as the early-testing stage of new drugs is speeded up.

It has shed light on the origins of diseases such as Alzheimer's, mad cow disease, malaria and ovarian, breast and prostate cancer, and has facilitated foodstuff controls.

"Chemists can discover cancer faster than doctors can," the Nobel jury said.

As the gene sequences of more and more organisms are mapped, researchers are looking at the

relationship between gene codes and different proteins.

Nobel laureates Fenn and Tanaka were lauded for making advances in the late 1980s in mass spectrometry, the means of identifying a molecule based on its mass because even the largest proteins are too small to be studied with a microscope.

They developed methods to separate protein molecules and spread them out as a cloud of freely hovering electrically charged protein ions, making detailed analysis possible.

These large molecules are the human proteins that, today, are the ones that are the basis of proteomics. They are also the target of tests that are now routine, such as food hygiene, environmental analysis and doping and drug tests.

In the 1980s, Wuehrlich meanwhile built on a process called nuclear magnetic resonance, using it for the first time on proteins which allowed him to see their three-dimensional structure and dynamics.

The advantage of the method is that it allows the study of proteins in solution, an environment similar to the living cell.

"The possibility of analysing proteins in detail has led to

increased understanding of the processes of life," the jury said.

Fenn, 85, is a professor at Virginia Commonwealth University in the United States, while Tanaka, 43, is a research and development engineer at the Life Science Business Unit at Shimadzu Corp. in Kyoto, Japan.

Fenn and Tanaka won one half of the prize worth 10 million kronor (1.10 million euros, or 1.07 million dollars), while Wuehrlich won the other half.

Wuehrlich, 64, is currently a professor of molecular biophysics at the Swiss Federal Institute of Technology in Zurich, and a visiting professor of structural biology at The Scripps Research Institute in La Jolla, California.

He has worked as a consultant for a number of the world's largest pharmaceutical companies, including Hoechst, Ciba-Geigy, and Novartis, where he has been since 1997.

The trio will receive their prize, along with the other Nobel laureates, from the hands of Sweden's King Carl XVI Gustaf at the official ceremony in Stockholm on December 10, the anniversary of the death in 1896 of the prizes' creator, Swedish scholar and inventor Alfred Nobel.

# American, Israeli win Nobel for economics

AFP, Stockholm

Daniel Kahneman, a citizen of both Israel and the United States, and Vernon L. Smith of the US were awarded yesterday the 2002 Nobel Economics Prize for innovative work in the fields of psychological and experimental economics.

Kahneman was lauded for having "integrated insights from psychological research into economic science", and Smith for having "established laboratory experiments as a tool in empirical economic analysis, especially in the study of alternative market mechanisms."

Kahneman, by integrating psychology into economics, has laid the foundation for a new field of research, the jury said. The first Israeli to win the prestigious prize, he has demonstrated how human decisions may systematically depart from those predicted by standard economic theory.

"Kahneman has thus demonstrated that in situations with uncertainty, human judgment often exploits rules of thumb which systematically contradict fundamental propositions in probability theory," the jury said.

Smith's work has focused on the role of auctions, which are traditionally used to organize markets for raw

materials or financial instruments, and more recently, for deregulation and privatization of public monopolies such as broadcasting rights.

Smith has also evaluated different mechanisms for allocating airport time slots using computer-assisted markets.

The Nobel jury said economics had long been considered a non-experimental science, where researchers have had to rely on field data, or observations of the real world.

But controlled laboratory experiments have emerged as a vital component of economic research, and, in some instances, experimental results have shown that basic postulates in economic theory should be modified.

The process has been generated by research in two areas: cognitive psychologists who have studied human judgment and decision-making, and experimental economists who have tested models in the laboratory.

The Nobel jury lauded Kahneman, a professor of psychology and professor of public affairs at Princeton University, and Smith, a professor of economics and law at George Mason University in Virginia, as innovators in the two fields.

The pair will share the prize sum of 10 million kronor (1.10 million euros, or 1.07 million dollars).

Along with the other Nobel laureates they will receive their prize from the hands of Sweden's King Carl XVI Gustaf at the official ceremony in Stockholm on December 10, the anniversary of the death in 1896 of the prizes' creator, Swedish scholar and inventor Alfred Nobel.

## Jubo Dal leader

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In another incident, an employee of a plastic factory was stabbed to death by a fellow worker in the city's Lalbagh area.

Abdul Kader 15, son of Abdul Halim, a machine helper of Quality Plastic factory was stabbed by his colleague Shahin at about 9:30am.

The incident took place when Kader locked in a quarrel with Shahin. At one stage Shahin stabbed him with a hacksaw blade. He was rushed to the DMCH where on-duty doctors declared him dead. The body was sent to the hospital morgue for autopsy.

Mafiz Uddin, victim's uncle, filed a case with the Lalbagh Police Station accusing Shahin but police are yet to arrest him till 9:00 last night.

# Economy looks up

FROM PAGE 1

cent in FY02 through massive cuts in expenditure. This has reduced the need for higher government borrowing.

However, the casualty of this pruning exercise was the annual development expenditure, and not the revenue expenditure as was expected. And worst still, the quality of development programmes remain a question.

The BNP-led alliance took office on October 10, already more than three months into the FY02. Finance and Planning Minister M Saifur Rahman then trimmed the annual development programme for the fiscal to Tk 16,000 crore from Tk 19,000 crore.

However, contrary to his own philosophy, Saifur settled for a higher development outlay of Tk 19,200 crore for this fiscal, a big 20 per cent leap from last fiscal's revised Tk 16,000 crore.

The major success in the last one year could be skirting the crisis in foreign exchange reserve. From around \$1.05 billion in October 2001 the reserve rose to \$1.758 billion in September, thanks to a healthy growth in remittance inflow. In FY02, remittance registered a

growth of about 33 per cent and still going strong at around the same rate.

And this was possible without any IMF bailout, any major disbursement from the World Bank and in the face of export erosion.

Revenue earnings in FY02 fell short of the target by 2.76 per cent, although it was 7.87 per cent higher than the FY01's. However, revenue growth in the first quarter of the current fiscal has been higher and crossed the Tk 4921.56-crore target.

Export, which faced a major shock amid global recession, fell short of the original target by 16.51 per cent in FY02 despite a 7.43 per cent increase in volume. However, in recent months the export is picking up and crossed the August target of \$562.5 million by 8.52 per cent.

But all these good signs get blotted if the investment situation is taken into account. That investment demand has been low can be inferred from the lower growth in term loan and decline in import.

Term loan disbursement in FY02 increased by only 14.66 per cent as against 87.87 per cent in the previous year. Till December of FY02, term loan disbursement

increased at a robust 45 per cent. But then, in the next two quarters till the end of FY02, term loan disbursement basically went on a negative growth thus making the end figure looking pale.

Take import decline in view. Import of capital machinery declined by 4.72 per cent, raw material by 7.80 per cent and intermediate goods by 26.37 per cent in FY02 over the previous fiscal. These figures corroborate the decline in term loans and indicate the stagnation in investment.

However, as Dr Debapriya Bhattacharya has put it, the notable steps taken by the government to set up an expenditure review commission, a revenue earnings commission and the bank reform committee would have a positive impact on the economy in the future. And that is what matters most.

But medium- and long-term challenges of structural reforms such as improving the trade supportive infrastructure, developing institutional capacity are now the need of the hour because fiscal incentives alone would not be enough to spur the real sector. And so, governance will have the final say.

# Separation of judiciary

FROM PAGE 1  
as the case is now with the Appellate Division of the Supreme Court.

Asked to comment on areas where the government has failed to deliver, Moudud said there is no government, which does not fail in some areas. "Our achievement in law and order did not live up to expectations", he admitted, adding that the government was putting in all-out efforts for improving the situation.

In his view, the most significant achievement of the government during its first year was the completion of speedy trials of some sensational cases.

Within a year, trials of seven such cases have been completed, he said. These are the Rubel, Shihab, Taebi, Trisha and Mahima murder cases, the gang-rape case of Rekha of Natore and the Simi suicide case.

He gave a list of projects and programmes that the government has taken up to streamline the legal system. These include a mechanism for alternative dispute resolution, setting up of a permanent public prosecution service, providing legal aid to the poor, move to appoint an Ombudsman, move to set up an anti-

corruption commission and amendment to the CrPC (sections 54, 167 and 115).

## Jahangir says

FROM PAGE 12

Several days later, Muhiit informed Jahangir that Commissioner Saydur Rahman Shahid -- now detained in the Gazipur jail -- offered to pay him to kill the commissioner, Jahangir said.

On September 29, the armed gang in a rented microbus tailed Shahadat when he and his son in a car were heading for the Holy Child Pre-Cadet School in Uttara. Pichchi Hannan shot him on arrival in front of the school hostel and other gangsters fired blank shots, Jahangir continued.

Shahadat, 40, commissioner of ward No. 90 of the Dhaka City Corporation, was killed at Road No. 8, Sector No. 6 in the Uttara Model Town.

Detectives arrested Jahangir at Keraniganj Tuesday in connection with the killing. Earlier arrested were four others.

# Road transport workers call off strike in North Bengal

UNB, Dhaka

North Bengal Regional Committee of Bangladesh Road Transport Workers Federation yesterday called off their transport strike that was scheduled to begin today.

The strike was withdrawn following fruitful discussion with the government at Rail Bhaban here yesterday during which the government side assured the federation leaders of resolving their problems.

The workers withdrew the strike in view of the first anniversary of the government and the auspicious occasion of Durga Puja, a ministry press release said.

State Minister for Communications Salahuddin Ahmed, Deputy Minister Asadul Hossain, representatives from the Home Ministry and BRTA were present at the meeting on the government's behalf.

# Opposition in JS

FROM PAGE 12

about it during their meeting with the opposition yesterday afternoon and said, "It is something... certainly we will take up the matter."

In reply to a query, he hoped that parliamentary committees, which are very important, would be re-established not only with the members of the government but also with opposition members working in it. "We hope in the coming months parliamentary committees will really start functioning again."

In an oblique reference to a strained relation between the two sides of the divide, the British MP hoped that both sides would work together in the development of Bangladesh parliament and democracy.

"We are strong believers in democracy. We believe that it is essential that democracy is rebuilt and flourished in Bangladesh," he said, adding that they can only give suggestion, but it is the political parties that will have to do the job.

Cox said Bangladesh is a country of a number of problems that really need to be solved in order to utilise whatever potential it has. "This is a country that has a number of problems, but it has a future, it has a workforce, hardworking, and as we know in the United Kingdom they have got talents."

He said the government working with the opposition would have to ensure that this talent of the people and resources of the country are developed for the benefit of the people and the country.

Baroness Uddin, a member of the House of Lords, ventilated her deep concern over deterioration of law and order in Bangladesh, saying that it unsettled everything.

She said there should be a

dialogue between the government and the opposition to find ways to resolve the pressing problems and take care of the people.

Earlier, members of the delegation had over an hour's meeting with Sheikh Hasina discussing wide-ranging matters, particularly relating to law and order, criminal acts, alleged political persecution, repression on minorities, corruption and issues concerning parliament and governance.

Briefing newsmen, Hasina's political secretary Saber Hossain Chowdhury said the CPA (Commonwealth Parliamentary Association) members were "deeply disturbed and deeply concerned" at the law and order, attack on the cars of the opposition leader and the deputy opposition leader, impasse in parliament, corruption and governance.

Sheikh Hasina told the CPA members that despite reservation about the last election and post-poll repression on her party and the people, Awami League returned to parliament, as it is committed to parliamentary democracy to eradicate poverty and ensure welfare of the people.

Hasina mentioned how her party strengthened parliamentary committees and introduced the PM's question time to ensure transparency and accountability of the government.

As the CPA members asked if the opposition would return to parliament, she said despite all odds, her party joined the parliament. "But the government did not allow the opposition to discuss national issues of vital importance and make parliament effective." But, she said, it is not possible for her party alone to

make parliament functional.

When the Commonwealth parliamentarians wanted to know if there was any link between the government and terrorism, Hasina told them that after the government assumed power, some 45,000 "identified terrorists" were released and "top terrorists" given nomination for the City Corporation elections.

"The government which is responsible for the current state of terrorism is virtually encouraging the terrorists through their false and irresponsible statements blaming the opposition for it," she said.

In support of her contentions, relevant documents and paper clippings were handed to the CPA delegation members.

Saber Chowdhury said the meeting also discussed denial of press freedom, preventing private TV channels from cover parliament proceedings, closure of ETV and departure of Simon Dring.

He said the delegation members took note of all this and will let the British government know about what is happening in Bangladesh.

Other members of the CPA delegation were Dr Roger Berry MP, Ben Chapman MP, Dr David Drew MP and Gareth Thomas MP. British High Commissioner Dr David Carter was present in the meeting.

Hasina was aided by Abdus Samad Azaad, Zillur Rahman, advocate Abdul Hamid, Amir Hossain Amu, Abdur Razzak, Tofail Ahmed, Suranjit Sengupta, SAMS Kibria, Abdul Jalil, advocate Rahmat Ali, Abdus Shaheed, Farooq Khan, Saber Hossain Chowdhury and Jawadul Karim.

# Four to die for raping Mahima

FROM PAGE 1

packed courtroom at 11:25am. In the judgement, the judge said it was evident that the four rapists kidnapped Mahima at dagger point from her house, took her to a sugarcane field and raped her by turn. It was also proved that they photographed the victim while being raped.

It was also proved that the victim's father wanted to recover the photos. But the convicted and their relatives threatened Mahima's family instead of returning the pictures.

"As a result, Mahima was deprived of social justice and instigated by the activities of the accused, committed suicide only to end her ignominy," the judge said.

The charges against the convicted were framed under Section No. 9 (3) of the Women and Children Repression Prevention Act, 2000. But the court decided to shift the charges under Section 9 (2) of the same act as the death of the victim was not the outcome of the rape incident but in a activities of the rapists and their relatives during the incident.

"Examining the nature of the incident, witnesses, evidences, consequent events and legal sides, the highest punishment of death sentence is awarded against Farid, Selim, Ujjal and Faruk. And as the highest punishment was given under Section No. 9 (2), no punishment was awarded under Section No. 7. Rather the accused were fined Tk 1 lakh each and the proceeds will be given to the victim's family considering the nature of the incident," the judgement said.

Mahima's mother Sarwara Begum broke into tears as she came to know about the verdict from journalists. "I am happy, so happy that I cannot express it in words," said Sarwara as tears rolled down her cheeks. "I hope the verdict would be executed at the earliest possible time."

Mahima's grandmother, Kalema Bewa told newsmen: "Since her death, I kept visiting my dear granddaughter's grave and prayed to Allah for justice. I am grateful to Him for granting my prayers."

However, Fahima, younger sister of Mahima, was apprehensive of reprisal. "I am feeling insecure as relatives of Ujjal threatened to assault me yesterday (Tuesday)."

The Association for Community Development (ADC), a local non-government organisation, later took

Fahima to its shelter centre.

In his reaction, Ujjal claimed he did not get justice. "The judgement was pronounced under political pressure. I will appeal to the higher court."

According to the details of the case, after the rape of his daughter, Mahima's father went to the convicted and their relatives and begged for return of the photographs. However, he was scolded and turned back by the criminals.

On February 18 morning, the convicted, their fathers and other relatives went to Mahima's house and hurled abuses at her family members. They called Mahima a girl of loose character and threatened to make public display of the nude photographs of the girl unless Mahima's family kept mum over the incident.

Sanaullah, sub-inspector of Puthia Police Station, who probed the case, submitted the charge sheet after 13 days.

There was no witness to the crime and one of the convicted, Ujjal, in a statement after his arrest pleaded not guilty. He said that Mahima was not raped and that he was not involved in the incident.

The judge also mentioned that Ujjal had claimed to be an activist of the BNP and leader of the Puthia College unit of the JCD, while Mahima's father Abdul Hannan, her brother Jahangir Alam and their other relatives were directly or indirectly linked to the Awami League. And so, the crime was politically motivated.

The lawyers of the absconding convicted claimed that Mahima had an affair and she committed suicide as her family refused to let her marry the man.

The victim committed suicide and so there was no direct witness in the case. But the victim described the incident to her family members and some others; and these witnesses are acceptable following the Section 7 of the Act.

In his statement, prosecution witness Abu Bakkar, who owns the sugarcane field where Mahima was raped, did not mention the name of Ujjal, but he mentioned the three others.

He also said that Ujjal, his father Mosharrif Hossain and relatives of other accused rebuked Mahima's family members and passed disgraceful comments towards Mahima.

They also threatened the family to

make public the nude pictures of Mahima if they do any access.

The judge also mentioned that a three-member medical board headed by Dr Ashrafur Alam of the forensic department of the Rajshahi Medical College Hospital prepared the post-mortem report of Mahima.

The report said there were marks of injury on Mahima's breasts, which confirmed that she had been raped. Chemical tests also found trace of semen in Mahima's shalwar and kameez.

Although Mahima herself talked about the photographs, the investigating authorities managed to recover only one that showed a shadowy sugarcane field and two persons (a man and a woman).

The same photo was found on the table of Faruk and in the almirah of Jahangir, maternal uncle of Selim.

The investigating officer in the case also recovered several negatives from the house of Jahangir.

## Morshed

FROM PAGE 1

Commission. Khan briefed his Saudi counterpart on achievements of the present government in social, political and economic sectors during the last one-year period. The measures adopted by the government to consolidate democracy to make parliament effective were also discussed.

He also highlighted the government's role in empowering women, modernisation of Madrasah education and policies for poverty alleviation and reduction on dependence on aid.

Bangladesh's role in peacekeeping activities in various trouble spots around the world was also discussed at the meeting.

Khan apprised Prince Saud Al-Faisal of the active role of Bangladesh in various international forums, particularly in the UN and the OIC. He underscored the importance of making the OIC more effective so that it can play an effective role in meeting the challenges faced by the Umamah.

The Saudi foreign minister described the relationship between the two countries as very close that withstood the test of time and gained strength over the years.

# Bashar spares blushes

FROM PAGE 12

Wednesday. Bashar, one of the most experienced players in a young Bangladeshi squad, was not picked for the first two matches, in which the side suffered heavy defeats.

But the 30-year-old batted with more assurance than any other touring batsman as he made 51 off 67 balls with six fours, the highest score for Bangladesh in the series.

Bashar and Sanwar Hossain put on 68 off 93 balls with the most positive performance by the Bangladesh top order in the three matches.

South African captain Shaun Pollock took two wickets in three balls however, sparking a collapse by the tourists, who lost four wickets for 30 runs.

Skipper Khaled Mashud put on 37 for the seventh wicket before the last four wickets tumbling for one run.

Pollock, unusually, did not take

the new ball and came on as first change after recalled Steve Elworthy had opened the bowling with Makhaya Ntini.

The change seemed to work. Elworthy took the first two wickets within the first five overs, while Pollock finished with four for 24.

South Africa, who clinched the series by winning the first match in Potchefstroom by 168 runs and the second in Benoni by ten wickets, made four changes.

Left-handed batsman Ashwell Prince won his first cap, while Jonny Rhodes returned from injury and fast bowler Elworthy and left-arm spinner Robin Peterson were recalled.

Boeta Dippenaar, Dale Benkenstein, Lance Klusener and Justin Ontong were left out.

Bangladesh made three changes for the day-night match, with Habibul Bashar, Rafiqul Islam and Anwar Hossain replacing Al Shahrir, Hannan Sarkar and Monjurul Islam.

# Communal harmony

FROM PAGE 1

and State Minister for Water Resources Goutam Chakravarty also spoke at the briefing held at the state guesthouse, Padma.

Reaz Rahman said the government is determined to maintain security and tranquillity for the peaceful and joyful celebration of the biggest festival of the country's Hindu community.

The state minister elaborated the government's preparedness to take stern action against anyone attempting to disrupt the celebration for political or any other motivated reason.

"All preparations have been made and administrative steps taken to ensure security and peace throughout the country during the Puja festival," he told the representatives of different missions.

He informed that additional police and BDR are being deployed to keep strict vigil. Ministers, MPs and local leaders have also been advised to keep an eye on the situation in their respective areas, he added.

Reaz Rahman mentioned that warning signals have already been received and the government responded by taking into custody 14 people responsible for acts of vandalism.

The state minister further informed the foreign diplomats that as a special gesture the government has allocated and disbursed Taka 5 crore for the Hindu community ahead of their biggest festival.

## 60 RU students

FROM PAGE 12

Mondol visited the students. Meanwhile, many students told The Daily Star that diarrhoea broke out in the hall last Friday. But as the hall authorities did not take any preventive measures or care to find out the cause, the number of patient was increasing.

Students fear the number of the diarrhoea patients may increase. Sources blamed low quality food for the food poisoning.

The hall or university authorities are yet to form any committee to probe the incident.

When contacted, Provost of Madar Bux Hall Shamsuddin Ahmed told The Daily Star that they did not want the news of food poisoning and diarrhoea to spread.

RU Students' Advisor Prof. Rafiqul Islam and the hall provost were visiting the hall and the sick students round the clock. An ambulance was kept stand by in the hall.

# Pakistan goes to polls

FROM PAGE 12

Fellow ex-premier in exile, Nawaz Sharif, who was deposed by Musharraf in 1999 and is in Saudi Arabia, is barred from returning to Pakistan until 2010.

Musharraf has declared himself president until 2007. He is not contesting the elections. His regime is the country's fourth military dictatorship.

Almost 72 million Pakistanis are eligible to vote. It is not compulsory, and