

# AstraZeneca promotes “personalized” health care

**G**uided by a better understanding of diseases and the differences among patients, one of the world's leading pharmaceutical companies, AstraZeneca, is adopting a “personalized” approach to health care, particularly in developing targeted cancer treatments.

Personalized medicine is the application of genetic and molecular data to help determine an individual's predisposition to a particular disease and response to treatment.

“I believe the potential exists to make significant advances against cancer and other killer diseases, and the big lesson is that future progress depends in large part on targeted therapies. In other words, on personalization of health care,” said David Brennan, chief executive of AstraZeneca.

Speaking before 900 key international health-care stakeholders at the 2009 Medical Innovation Summit, a major industry conference organized by the internationally renowned Cleveland Clinic, Brennan discussed AstraZeneca's commitment to future innovations in health care.

In his speech, “Improving the prognosis: cancer cures through innovation,” he shared the story of the anticancer drug, gefitinib, to illustrate the progress toward better, more targeted treatment outcomes. “AstraZeneca did not give up on gefitinib despite early setbacks in its development. I am delighted that our determination is now helping many patients around the globe,” Brennan said.

Gefitinib works by blocking the action of epidermal-growth-factor receptors (EGFR), which can become deranged and promote the multiplication of cancer cells. In July, the European Commission granted



**MR. BRENNAN**

**Potential to make significant advances against cancer and other killer diseases.**

marketing authorization for gefitinib for the treatment of adults with locally advanced or metastatic nonsmall-cell lung cancer (NSCLC) with mutations for the gene that codes for EGFR.

In Europe, gefitinib is the only oral targeted therapy available for first-line use and one of just a handful of available anticancer medicines that target only those patients most likely to benefit.

In the Philippines, gefitinib is indicated for the treatment of patients with locally advanced or metastatic NSCLC who have pre-

viously received chemotherapy or who are not suitable for chemotherapy.

Brennan said that gefitinib played a key role in furthering understanding of personalized treatment in NSCLC and that it has set the agenda for future drug developments across therapy areas within AstraZeneca. The gefitinib story showed that lung cancer is not just one disease but is caused by many different disease mechanisms involving different biological pathways, he explained.

“This knowledge has led to our increasing understanding that we need to target the disease with different treatments, depending on what type of lung cancer it is. The future lies not simply in testing medicines among the whole population but in identifying [groups with] specific molecular subsets and trialing medicines among those groups,” Brennan stressed.

Brennan said that AstraZeneca is investing in the discovery and development of potential new treatments for brain, breast, and ovarian cancers, as well as continuing its commitment to lung cancer. “At least 1 in 10 of AstraZeneca medicines in clinical development is adopting a personalized approach this year and this figure rises to over half for our anticancer medicines currently in development.”

“One of the ways we contribute to personalized health care is by participating in global research. We have 12 dedicated people working on 11 ongoing clinical trials involving about 500 patients in 53 sites all over the Philippines,” said Amal S. Kelshikar, president of AstraZeneca Philippines. **M**

## One in four lung-cancer patients is a non-smoker

**A**lthough most lung cancers are caused by smoking, a 2007 review in the *Nature Reviews Cancer* found that about 25 percent of lung-cancer cases worldwide, accounting for over 300,000 deaths each year, are not attributable to tobacco use. Another review revealed that lung cancer in never-smokers is more common in Asia, particularly in women. “Never-smoker” is a person who has smoked less than 100 cigarettes in their lifetime.

“Research has yet to establish what causes

lung cancer in never-smokers, but secondhand tobacco smoke is probably responsible for about 20 percent of lung-cancer cases in never-smokers,” says Dr. Ma. Belen Tamayo, president of the Philippine Society of Medical Oncology. Air pollution may cause about five percent of lung cancer. Indoor air pollution like fumes from cooking oil and smoke from coal- or wood-burning stoves are known to increase lung-cancer risk, particularly in Asia.

Lung cancer is the world's leading cause of cancer death, claiming more lives than

prostate and breast cancers combined. Data from the Philippine Cancer Society and the Department of Health show that in 2005, lung cancer was one of the most common cancer among Filipinos of both sexes. It was by far the most common cancer among Filipino males and the third most common among Filipino women.

Symptoms of lung cancer include persistent coughing, chest pain, coughing up blood, shortness of breath, wheezing or hoarseness, repeated pneumonia or bronchi-

tis, weight loss and fatigue. Tamayo notes that cure via surgery is possible only in 35 percent of patients, and still the risk of recurrence is high. "Prevention remains the best strategy," she stresses.

Surgery, radiotherapy, and chemotherapy may all be used in treating lung cancer. In addition, a number of new agents are now available which target and block the cellular signals that promote proliferation of cancer cells. One of these new targeted therapies is a class of drugs called EGFR-tyrosine-kinase inhibitors (EGFR-TKI). EGFR (epidermal-growth-factor receptor) is a cell receptor that signals cancer cells to multiply and survive. One type of EGFR-TKI is gefitinib, a product of AstraZeneca.

Tamayo welcomed the observance of

### Myths and facts on lung cancer

Myth	Fact
• Only smokers develop lung cancer.	• 25 percent of people with lung cancer have never smoked.
• Lung cancer isn't a big global killer.	• Lung cancer kills more people worldwide than any other cancer.
• Lung cancer isn't as deadly as other cancers.	• Lung cancer kills more people than prostate and breast cancers combined
• Lung cancer is really only an issue for men	• Women are more susceptible to lung cancer than men.
• Chemotherapy is the only treatment for lung cancer.	• In addition to surgery, radiotherapy, and chemotherapy, newer therapies are available to treat some types of lung cancer.

AstraZeneca fact sheet

World Lung Cancer Day every November 17 as an opportunity for an open and honest discussion about the disease. She lauded AstraZeneca for helping dispel myths and raise awareness about lung cancer.

As part of World Lung Cancer Day 2009, AstraZeneca released a fact sheet to dispel

common myths about lung cancer.

"Lung cancer isn't just for smokers—anyone can develop the disease. To prevent lung cancer, don't smoke, eat a healthy diet rich in fruits and vegetables, exercise regularly, and avoid secondhand tobacco smoke," counsels Tamayo. **M**

## Women deprived of health care at critical times

GENEVA

**W**omen are often deprived of health care in the crucial years of adolescence and old age due to social inequalities and neglect in male-dominated decision-making, the World Health Organization said.

"It's time to pay girls and women back, to make sure that they get the care and support they need to enjoy a fundamental human right at every moment of their lives, that is their right to health," said Dr. Margaret Chan, WHO director general.

In its first ever cradle-to-grave report on *Women and Health*, the UN health agency underlined that women were particularly vulnerable to a lack of adequate care in old age—when they often outlive men—and in their teens.

It also underlined that the lack of responsiveness to women's inherent health needs can be lethal, such as with complications in pregnancy and childbirth, or cervical cancer. "This points to another problem, the failure of health services to meet women's needs," Chan told WHO member states.

As a result, women provide the bulk of care—about 80 percent—as health staff or household caregivers, yet the system fails to address their own needs adequately, the WHO said.

Cervical cancer is the second most common type of cancer, with 80 percent of cases and an even higher proportion of deaths in poorer nations, the report said. Yet it can be prevented with a vaccine, detected by early screening, and treated early. "These deaths



AFP/A. Zammit

should not be happening," Chan said.

The report also found that treatable or preventable complications in childbirth or pregnancy were the leading cause of death among 15- to 19-year-old girls and women, including a "substantial" contribution from abortions.

Chan underlined that men exercise political, social, and economic control in many societies, affecting health services. "These unequal power relations translate into unequal access to health care and unequal control over health resources," she added. "We will not see significant progress as long as women are regarded as second-class citizens in so many parts of the world."

The report found that health care, espe-

cially in low- and middle-income countries, "may be biased against the old and is rarely geared to the particular needs of older women."

But the challenges of care for the elderly are equally acute in rich societies with low levels of fertility and growing proportions of older people in the population.

"Perhaps one of the greatest challenges faced by the individual woman as she ages and by the society which surrounds her, is the disintegration of the self that occurs with dementia," the report underlined.

The prevalence of dementia appears to double about every five years after the age of 65, when women live on average eight more years than men. Some 58 percent of the population above the age of 70 are women, according to the report.

Chronic conditions, such as cardiovascular and obstructive lung diseases, account for 45 percent of deaths in women over 60, and need to be tackled earlier in life by establishing healthier lifestyles, the WHO said.

The world's 600 million adolescent girls, meanwhile, face environments "that are too often neither safe nor supportive" at a time of "huge physical, social, and emotional changes," it added.

Girls' experiences of puberty can make a difference between ill and good health later in life, the report argued.

Yet, many of them face "constraints and marginalisation as a result of poverty, harmful social and cultural traditions, humanitarian crises and geographical isolation," hampering their access to health care and support when they most need it. **M AFP**