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Yaacov Ben-David, Canadian biologist, Key Laboratory of Chemistry for Natural Products in Guiyang

EXPAT EXPERT

## ON A HERBAL ROUTE

Canadian biologist Yaacov Ben-David and his Guizhou team are isolating TCM components for cancer research, Liu Xiangrui reports.

Since Canadian biologist Yaacov Ben-David put down roots in Southwest China's Guizhou province, he has been driven by a desire to understand how traditional Chinese medicine works.

Ben-David, 61, was born in Iran and received his PhD in molecular immunology from Hebrew University in Israel, in 1987.

He worked for the University of Toronto for more than 20 years since the early 1990s and also served as a senior scientist at the Sunnybrook Research Institute in the Canadian city for years.

"If we find out what are the active compounds that actually help in TCM, then we have already translated it (the result) and the entire world will benefit," says Ben-David.

He is now the director of a tumor pharmacology research unit at Guizhou's Key Laboratory of Chemistry for Natural Products, an affiliate of the Chinese Academy of Sciences.

The Sunnybrook Research Institute in Canada, where he worked earlier, has successfully identified oncogenes and tumor suppressor genes that have mutated in various forms of cancers.

In recent years, Ben-David turned his attention to studying the development of compounds and drugs that can be used to fight cancer.

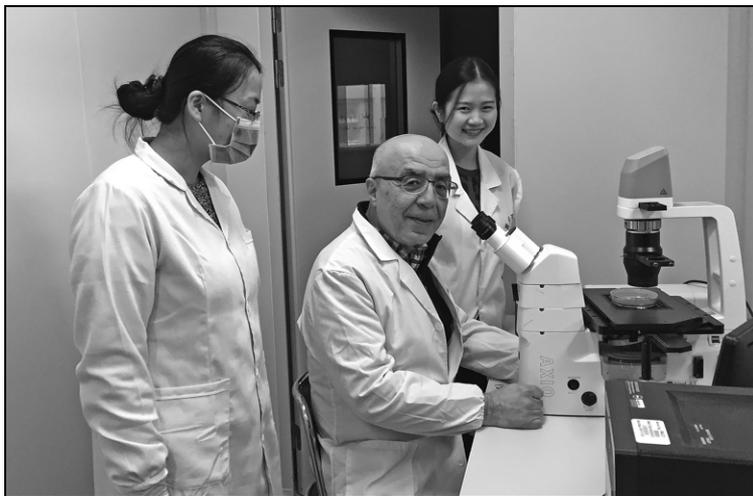
He saw opportunities for breakthrough research in Guizhou when he first visited the laboratory in provincial capital Guiyang for lectures in 2013.

"I saw how I could make a difference here," says Ben-David of his decision to work in Guiyang.

"I am a biologist and they have chemists. They extract compounds from TCM and there has to be somebody to understand their functions. That is my expertise."



Yaacov Ben-David and his research team in Guiyang. The biologist says he's glad to have built an international-level laboratory. PHOTOS PROVIDED TO CHINA DAILY



Training local talent is one of Ben-David's biggest tasks here.

The province has suitable soil and air for the growth of herbs for TCM. The region is home to many ethnic groups, such as the Miao people who have used TCM for long.

Since 2013, Guizhou has invested about 200 million yuan (\$29.4 million) annually to support the TCM industry.

Foreign professionals like Ben-David are also being sought by the province as it

looks to drive research and innovation.

Few studies have been done on natural compounds extracted from TCM while many compounds used in Western medicine have already been analyzed.

"Here I have access to everything new and locally sourced," he says, adding that Chinese scientist Tu Youyou, who won last year's Nobel Prize in medicine for her research on an antimalarial

substance, is an inspiration for him.

Although ancient, TCM is still not widely accepted globally because not many studies have been done on it.

He hopes to change the situation with his work, he says.

"Chemists can modify and develop TCM to make it better if we know how it works."

In 2014, the Guizhou laboratory's program was included

in the One Thousand Foreign Experts project, which was initiated by the central government in 2011 to invite foreign specialists to the country over a decade or so. The project provides grants to qualified candidates.

In this case, the laboratory has been given more than 10 million yuan to facilitate drug research by both the central and provincial governments.

Despite such support, Ben-David has had to deal with challenges, including building the laboratory from scratch and language barriers at the beginning, he says.

It's difficult to find enough local talent, because people usually prefer working in bigger cities like Beijing and Shanghai.

He has lost more than 10 trained technicians in the past two years, he says.

But Ben-David is glad that he has built an international-level laboratory, which has seen visits by high-level officials, including the Minister of Science and Technology, Wang Gang, earlier this year.

Now, Ben-David's team has about 15 chemists, whose work includes isolating components in TCM.

The laboratory has identified some TCM components

that might be used for the treatment of leukemia and other kinds of cancer, and a few relevant drugs are in pre-clinical development, he says.

In addition to drug discovery, Ben-David's team is also engaged in uncovering the molecular mechanism of cancer progression.

In collaboration with local scientists, they are working on understanding the molecular cause of diseases specific to the province.

Ben-David has also taken advantage of his wide network of contacts to help Guizhou enhance its international exchanges, including bringing top scientists for conferences.

Ben-David, who lives in Guiyang, says he enjoys life in the city despite the distance between the laboratory and the city center.

Having completed his first three years at the laboratory, Ben-David has just renewed his contract for another three.

Ben-David, who has married Yao Shaojuan, a local woman, is learning Chinese and says he plans to stay in China for a long time.

Contact the writer at [liuxiangrui@chinadaily.com.cn](mailto:liuxiangrui@chinadaily.com.cn)

PUBLIC HEALTH

## Optimistic women live longer, says study

By XINHUA in Washington

Women who have an optimistic view on life are more likely to live longer, a US study said on Wednesday. The study, published in the American Journal of Epidemiology, analyzed data from 2004 to 2012 from 70,000 women enrolled in the Nurses' Health Study, a long-running US study tracking women's health via surveys every two years.

The researchers looked at participants' levels of optimism and other factors that might play a role in how optimism may affect mortality risk, such as race, high blood pressure, diet and physical activity.

It found the most optimistic women, or the top quartile, had a nearly 30 percent lower risk of dying from any of the diseases analyzed in the study compared with the least optimistic women, or the bottom quartile.

The most optimistic women had a 16 percent lower risk of dying from cancer; 38 percent lower risk of dying from heart disease; 39 percent lower risk of dying from stroke; 38 percent lower risk of dying from respiratory disease; and 52 percent lower risk of dying from infection.

Previous studies have linked optimism with reduced risk of early death from cardiovascular problems, but this was the first to find a link between optimism and reduced risk from other major causes.

"While most medical and public health efforts today focus on reducing risk factors for diseases, evidence has been mounting that enhancing psychological resilience may also make a difference," says Eric Kim, research fellow at the Harvard T.H. Chan School of Public Health and co-lead author of the study.

**39 percent**

lower risk of dying from stroke for optimistic women, according to a US study on how optimism may affect mortality risk.

"Our new findings suggest that we should make efforts to boost optimism, which has been shown to be associated with healthier behaviors and healthier ways of coping with life challenges."

The study also found that healthy behaviors only partially explain the link between optimism and reduced mortality risk.

One other possibility is that higher optimism directly impacts our biological systems, Kim says.

ACTRESS

## Mei Ting takes on new role for children with disabilities

By CHEN NAN  
[chennan@chinadaily.com.cn](mailto:chennan@chinadaily.com.cn)

Chinese actress Mei Ting has played many complex roles on screen in the past two decades.

In the 2001 TV drama, *Don't Talk to Strangers*, which revolves around domestic violence, she was a battered wife. Then, she appeared as a masseuse in the film *Blind Massage*, a big winner at the 2014 Golden Horse Awards held in Taiwan.

The film also won her a best actress nomination at the Berlin International Film Festival the same year.

Of late, Mei, 41, has added a new off-screen role as an advocate of children's public health.

On Dec 3, which is marked as the International Day of Persons with Disabilities, Mei appeared at the Beijing

Record Factory in a *hutong* (alley) to record poems along with children with hearing problems.

They read poems such as *Farewell to Cambridge* by the late Chinese poet Xu Zhimo.

The recordings are part of a project called Joy Wave by China Children and Teenager's Fund, a local nonprofit founded in 1981.

"Motherhood has changed me. I now want to speak for underprivileged children," says Mei, whose daughter is aged 4 and son is 1 year old.

"I feel connected with parents who share anxiety about their children's health with me."

The soft-spoken actress says she was short on patience earlier but since her children came along, her outlook toward life has changed.

According to Zhu Xisheng, secretary-general of China



Actress Mei Ting attends a charity event in Beijing to help children with hearing impairments.

PHOTOS BY FENG YONGBIN / CHINA DAILY

Children and Teenager's Fund, among the country's earliest foundations to help children with disabilities, there are currently more than 130,000 children with hearing impairments under the age of



6, and every year, the loss of hearing is reported in more than 20,000 infants.

Mei is the first celebrity to join the project, but more are likely to record their voices for it, which is a good way to bring

public attention to children's health issues, Zhu says.

The film, *Blind Massage*, also gave Mei a closer view of the hardships faced by people with disabilities.

"We spent months living

with them and they were funny, smart and positive although they couldn't see," says Mei of the film's shooting in 2012.

Mei met her photographer husband, Zeng Jian, on the sets of the movie. They got married in 2012. The couple will work on a new film next year.

Previously, Mei was married to film director Yan Po.

Born in Nanjing, East China's Jiangsu province, Mei joined a children's dance troupe when she was 7. A few years later she became a professional dancer with a troupe of the People's Liberation Army.

Subsequently she quit dancing and moved to acting.

In 1996, Mei was admitted to the Central Academy of Drama in Beijing and her classmates included Zhang Ziyi and Qin Hailu, some of

the country's best-known actresses today.

Mei's performance in the 1997 Chinese movie, *A Time to Remember*, which was directed by Ye Daying and had the late Hong Kong-based singer-actor Leslie Cheung in the co-lead role, won her the best actress award at the Cairo International Film Festival the following year.

She didn't finish college as many acting opportunities came her way and she wanted to fully devote herself to them.

Rather than choosing commercial movies or international productions, Mei prefers art-house films and theater productions in China, which she says makes her feel "free and real".

"I am not ambitious. But the roles that attract me always offer me new insights into my work," she says.