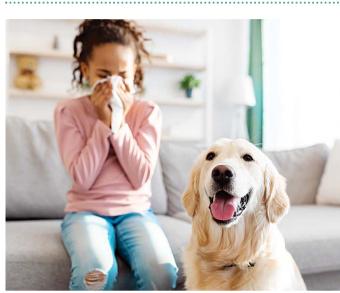
# ARBIT it happens here...

#### **#THERAPEUTIC**

# Potential Dog-Allergy Vaccine

Scientists have identified a series of molecular candidates for those parts of dog allergens that cause immune reactions in people - the first step in developing a vaccine against most causes of dog allergies.



here have been many research efforts describing the nature and progression of dog allergies, but there have been

very few applied studies that use this information to try to cure people of dog allergies entirely by artificially inducing immune tolerance. But researchers have now for the first time identified candidates for those parts of the molecules that make up dog allergens that could give us precisely that: a'dog allergy vac-

Being allergic to dogs is a common malady and one that s growing worldwide. Over the years, scientists have been able to identify seven different dog allergens-molecules or molecular structures that bind to an antibody and produce an unusually strong immune response that would normally be harmless



These seven are named Canisfamiliaris allergens 1 to 7 (Can f 1-7). But while there are seven, just one. Can f 1, is responsible for the majority (50-75 percent) of reactions in people allergic to dogs. It is found in dogs' tongue tissue, salivary glands and their skin.

Researchers have vet to identify Can f 1's IgE epitopes those specific parts of the antigens that are recognized by the immune system and stimulate or 'determine' an immune response (which is why epitopes are also called antiger determinants). More specifically, epitopes are short amino acid sequences making up part of a protein that induces the immune response.

Epitopes bind to a specific antigen receptor on the surface of immune system antibodies, B cells or T Cells, much like how the shape of a jigsaw puzzle piece fits the specific shape of another puzzle piece. (The part of the receptor that binds to the epitope is in turn called a paratope). Antibodies, also known as immunoglobulin, come in five different classes or isotypes: IgA (for mmunoglobulin A), IgD, IgE, IgG, or IgM. The IgE isotype (only found in mammals plays a key role in allergies and allergic diseases. There is also an IgE epitope that is the puzzle piece that fits the IgE

been extensive effort at developing epitope-focused vaccines - in this case, a vaccine

"We want to be able to present small doses of these epitopes to the immune system to train it to deal with them, similar to the principle behind any vaccine." said Takashi Inui, a specialist in allergy research, professor at Osaka Prefecture University and a lead author of the study. "But we can't do this without first identifying the Can f 1's IgE epi-

ray crystallography (in which the diffraction of x-rays through a material is analysed to identify its 'crystal' structure) to determine the structure of the Can f 1 protein as a whole - the first time this had ever been done.

They found that the pro tein's folding pattern is at first glance extremely similar to three other Can f allergens. However, the locations of surface electrical charges were quite different, which in turn suggest a series of 'residues' that are good candidates for

the IgE epitope. Using this basic data, further experimental work needs to be performed to narrow the candidates down, but the findings suggest the development of a hypoallergenic vaccine against Can f 1 - a dog-allergy vaccine - is within our grasp.

The production of a 'hysuch epitopes would not jus be a world-first with respect to respect to any allergic reacallergy vaccine, the principles behind it could be used much more widely against various other allergies too. 



isotype's paratope. In recent years, there has

against dog allergies

So the researchers used X-

poallergenic vaccine' by use of dog allergies but is rare with tion. If the researchers' work is indeed used to develop a dog



Published author, poet and a YouTuber hen it is about

Shailaza Singh

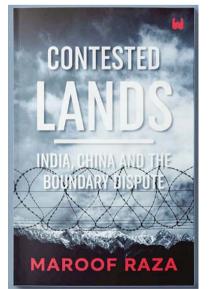
India's neighbours like China and the

Pakistan, I always remember a joke I had heard a long time ago; Once, all countries decided to visit God in his heaven

to ask for favours for their respec tive lands. The Russians complained that their winters are so cold that they can hardly breathe while the Africans cry about the hot desert and scorching summers Similarly, some countries complain about the excessive rains while others bemoan the kind of citizens they have. Suddenly one of them looks at India and says, "God, you have really been partial to India haven't you? You have given it a varied climate, plenty of sun and rains, fertile lands and intelligent people! Hearing this, everybody starts fight ing with God. God smiles and says, "Quiet my children! It is true that I have given India everything. But then I have also given them very nice neighbours too."

So what is our equation with China? A majority of Indians survive on cheap Chinese goods (some don't even know that they buy goods made in China). While the matches between India and Pakistan elicits the nationalist sentiment, there is very little that creates that kind of passion in the mind of an Indian where China is concerned. Yes, there was some furore over Tick Tock and banning Chinese apps and more during the recent Doklam standoff, not much has been done for the issue.

Most of us are unable to even fathom the world politics around the relationship between India and China. Why does USA keep telling India that China is building up bases near the Indian border or why do we have skirmishes with China every now and then? These and many other questions made me read the recently released book 'Contested Lands' by Maroof Raza, a former Army officer and a wellknown media commentator on glob-



1 at the

# The Tale of Two Countries (....1)

# As told by Maroof Raza

For most Indians, while Pakistan has been about love and hate, China has been an enigma of sorts. They gorge on the Indianised versions of the Chinese foods; love buying cheap Chinese trinkets and gadgets and even watch dubbed versions of Chinese movies. However, China is much more than what meets the eye, as is evident by Maroof Raza's latest book 'Contested Lands'

### **#CONTESTED LANDS**

al military and security issues. The book was an eve opener and so was the candid tet-e-tat with the author. An old-time Friend or Foe

In your book you have stated that Nehru considered China as an 'old time friend' and wanted to build friendly relations with India's aggressive neighbour. In fact in the Panchsheel Treaty which was signed between India and China in 1954, India accepted Tibet as a part of China and gave up its extraterritorial rights over Tibet and legitimised the Chinese claims over Tibet when the entire non-communist world was condemning China's occupation of Tibet. India also surrendered its three extraterritorial Indian Army outposts, stationed since 1904, under the treaty of Lhasa, when it agreed to withdraw its troops from Yatung, Gartok and Gyantse in Tibet. Moreover, India also offered China the India-run post and telegraph facilities in Tibet. The question is why wasn't Pandit Jawaharlal Nehru interested in liberating Tibet or siding with them?

From what I understand, firstly Panditji had a belief that being friendly to a new emerging country like China is a better way to establish new equations with China. He was happily oblivious of China's historical animosity towards India. Please remember in the initial vears when China came into being. Lord Mountbatten was the head of Indian state. So, China saw India as

the extension of the British Raj. Britain was also talking in terms of India being centre of the commonwealth and the dominion status that they wanted to extend to India like they had to in Australia and Canada

Secondly, Nehru in his idealism believed that if you are nice to a new country which is still finding its feet, it was a better way to go about building better future relationships and ensuring your security with your large neighbour. At that point in time, he had no idea about Mao's ambition to take over Tibet. He felt that Tibet was a buffer enough. China and Nehru both were engaging with the Soviet Union. So, he thought that both India and China were in the same boat. It is typical of people who are western educated to become anti-west.

Nehru was running the policy for foreign relations. Gandhiji was known for non-violence and Nehru wanted to be known for non-alignment. So, he thought his way was the right way. When you are so obsessed with your vision you don't tend to look right or left. He went for a visit to China and came back from there with all sorts of false promises by the Chinese. Nehru was in a way like what our prime minister Narendra Modi is today. He was so powerful that no one could stand up to him including Sardar Patel. So. he must have told the latter, to handle the integration of the states and let him handle the foreign affairs. Mao Zedong (President of PRC People's Republic of China) wanted to cut Nehru down to the size because his profile was becoming larger than life in the international arena. Today, Modi is also being

eignty." Why was it that no country was ready to recognize Tibet as a free state? In 1950s, no one saw China as a threat. When they did begin to see China as a threat, it was perhaps too late. Sardar Patel was dead by then. As far as the US was concerned, at that time Britain was very powerful nternationally and they didn't see themselves as having done any wrongs even with the opium wars. The British were really setting the agenda at the UN even for the Americans. British concocted this term called suzerainty which the Chinese dismissed but they kept hankering on it. So, suzerainty

he IAF had carried out several

air reconnaissance missions in

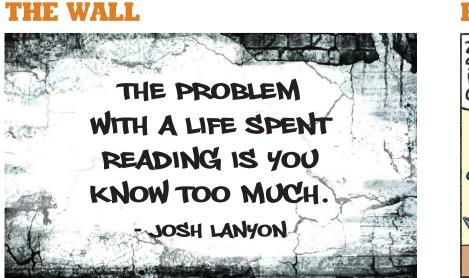
detailed photography of that

region- from Gilgit via the

Chinese soldiers in Aksai Chin.

that area from 1960

became a line that everyone in the west adopted. Also remember, when China began to occupy Tibet, the US was more occupied with the Korean onwards....Even two years later, the Karakpram range and westwards had been conducted not once but several times by Wing Commander 'Jaggi', Jag Mohan Nath, MVC. Since 1960, Jaggi Nath had filmed and reported the presence of



# **BABY BLUES**



light. Who knows what will happen in the future but I am just saving that there seemingly are similari-

seen by the Chinese in a similar

#### **Tibet Stands Alone**

You have also mentioned that eventually, El Salvador, not India moved the motion on Tibet, as most countries at the UN General Assembly looked to the US for direction on the Tibet issue. Washington, however asked the US delegation to take India's directions on how to proceed against China, but India wasn't keen to lead in this matter... The Tibetan government found itself alone and friendless. It did not enjoy the status of a nation state as no country including India, had recognized it as such. Even Britain, which had a long history of engage ment with China and Tibet and had tried to define the boundaries of Tibet and China at the Shimla Conference, suggested that sufficient autonomy could be obtained with Chinese suzerainty not sover-

#### **World Vegan Month**

A

The book talks about the 'Longju incident of 25 August 1959,

which marked the first armed encounter between Indian and

Chinese forces. It says that Longiu

from Assam Rifles continued to patrol the location until the Sino-

that he would hit India when the

world was preoccupied. So, he had planned it in that one-month time

where everyone was involved in the

Cuban crises because this was a situation which could have resulted in

nuclear war between Russia and

America. Mao attacked in 1962, ecause after the debacle of the 'culural revolution', which killed 45

million people, he wanted to give

China something to be proud of and nence he attacked India. Also, he

was encouraged by Russia to attack India as that time Russia was on

China's side. Nikita Khrushchev

gave the go ahead to Mao and told nim that now was the time to attack

India. Mao was not a good leader

45 million people in his great exper-

except for his India policy. He killed

nent of the 'cultural revolution'.

am not saying it, the historians have

recorded it. He had no value for

human life or anything except to

too busy in his own affairs and

liaisons with women to worry about

That's utter nonsense! He may

have had affairs, so what? Find me

affairs. Mao's own doctor at that

time gave a statement and said that

Mao lived a vulgar life and every

other day he had a new Chinese

woman. That didn't distract him

from his agenda. Kennedy also had

his own share of affairs. Most lead-

ers have been like that. That is not

the reason why Nehru didn't see the

writetoarbit@rashtradoot.com

writing on the wall.

To be Continued..

a global leader who didn't have

India and China or other such

Some people feel that Nehru was

make a point.

. Indian war in 1962.

was an Indian border post, directly located along the McMahon Line. when it was attacked by Chinese border troops forcing Indian troops to withdraw. Yet. Indian troops



eganuary Month is a month-long celebration of all things vegan and was created to encourage non-vegans to try out the lifestyle. Often referred to as a lifestyle and not a diet, vegans who practice veganism aim to reduce the suffering of animals, help the planet and improve global health by not eating any animal products, such as meat, dairy or eggs, and also by abstaining from contributing to animal exploitation such as honey production, creation of leather goods and industrial farming of animals.



Nehru with Chinese premier Zhou enLai.



India China War

war. British were concerned about the Suez crises. So, China was slowly occupying Tibet while everyone was busy else

#### **The Skirmishes Unfold**

The book talks about the 'Longju incident of 25 August 1959, which marked the first armed encounter between Indian and Chinese forces. It says that Longju was an Indian border post, directly located along the McMahon Line, when it was attacked by Chinese border troops forcing Indian troops to withdraw. Yet, Indian troops from Assam Rifles continued to patrol the loca tion until the Sino-Indian war in 1962. Today, it is controlled by China, but claimed by India.

The IAF had carried out several air reconnaissance missions in that area from 1960 onwards....Even two years later, the detailed photography of that region- from Gilgit via the Karakpram range and westwards had been conducted not once but several times by Wing Commander 'Jaggi', Jag Mohan Nath, MVC. Since 1960, Jaggi Nath had filmed and reported the presence of Chinese soldiers in Aksai

#### Wartime

It is evident that China was slowly and steadily increasing its step into India. But what was the cause of this build up which resulted in the war of 1962? From what I can understand

China was getting quite insecure as India was becoming too close to finding their nuclear facility which

naissance flight by Wing Commander Jaggi Nath. And if India would have known, US would have also known because people in Nehru's office were passing on all the classified information to the Americans. Had Americans come to know about it, they would have gone with hammer and tongs to knock off that facility like Israel did with Iraq. Where Israel was in 1982, America was in 1952. Mao wanted to make China the world's most respected country and he used to often say that power comes from the barrel of a gun.

was quite evident from the recon-

Despite all these reconnaissance missions, why was it that India was caught unawares by the Chinese? This was because Mao had

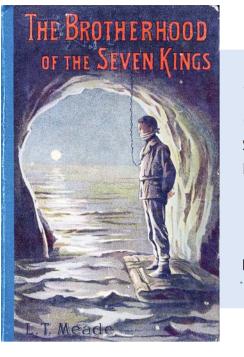
planned the 62 operations in a way



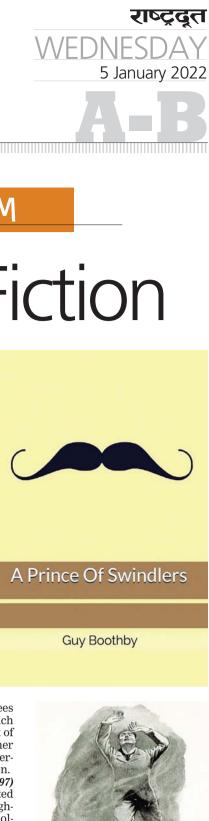


### **#BOOKWORM**

# **Detective Fiction**



Five Victorian detective stories to read that are not Sherlock Holmes mysteries



vast treasure trove of detective stories was published in periodicals, newspapers and magazines between 1893 and 1900. In December 1893, just six years

after his first appearance and at the height of his popularity with the late - Victorian reading public, Sherlock Holmes, the world's most famous fictional detective, was killed by his creator Arthur Conan Doyle. In 'The Final Problem', published in The Strand magazine, Sherlock plunged over the Reichenbach Falls in a struggle with master criminal Professor Moriarty and both were swallowed by a cauldron of swirling water and seething foam. His body was not recovered

At the time of the story's publication, Doyle firmly believed that this would be the last of Holmes. He considered his detective fiction a lower stratum of literary achievement and felt that with Holmes out of the way, he could capitalise on his celebrity and attract an audience for his long historical novels. Authors are not always the best judges of their own work.

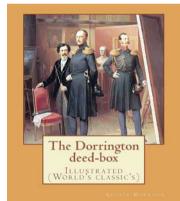
For fans of Dovle's detective stories, the good news is that they found dozens of detectives to take his place. A vast (and largely uncharted) treasure trove of detective stories was published in periodicals, newspapers and magazines between 1893 and 1900, as Holmes rivals, clones and parodies emerged to fill the great detective's deerstalker hat and

cape. Here are five of the best: 1. The Experiences of Loveday Brooke, Lady Detective (1894) Lovedav Brooke is the first fe male detective created by a fe male author (Catherine Louisa Pirkis). Appearing more than 25 years before female detectives were officially employed by the Metropolitan Police, private investigator Brooke is frequently asked by the police to assist with cases where a 'feminine' perspective is required.

Pirkis's gendered twist on the



Victorian detective genre sees Brooke's 'female methods' - such as gossip and gaining the trust of servants - trouncing those of her male contemporaries and exoner ating wrongly-suspected women. 2. The Dorrington Deed-Box (1897) Sherlock Holmes often asserted that he would have made 'a high ly efficient criminal'. In this collection of short stories, Arthur Morrison's Horace Dorrington takes this notion to its furthest



Dorrington is a charming East End criminal with a very successful private detective busi ness in the prosperous West End of the Victorian metropolis. Throughout his adventures, he lies to, steals from, poisons blackmails and attempts to kill various clients and criminals. This is a thrillingly chaotic and unsettling portrait of a late - Victorian London pervaded by greed and crime

3. A Prince of Swindlers (1897) Guy Boothby's collection of six short crime stories follows the adventures of Detective Klimo, the most talked-about detective in London. Working from his Park Lane mansion, his clients include the cream of London society who consult him when their jewels or paintings are stolen.

The twist is that Klimo's alterego is gentleman burglar Simon Carne, a master of disguise who has travelled to England from India to profit from the wealth collected in the imperial metropolis for the Queen's jubilee celebra-

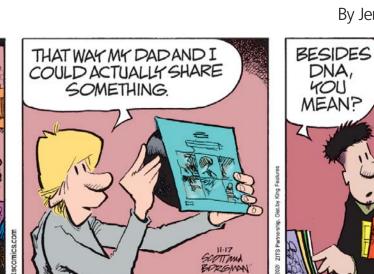
4. Ghosts: Being the Experiences of Flaxman Low (1899) As E and H Heron, mother and son team Kate O'Brien Prichard and Hesketh Prichard co-authored 12 stories featuring Flaxman Low. "the Sherlock Holmes of the ghost world". They were first published as 'Real Ghost Stories' in Pearson's Magazine from 1898 to 1899. While Sherlock Holmes emphatically disavowed



## THAT'S NOT BABY-WHO 15 PONY-FACE, THAT'S DESIGNING BABY. EEL. FACE. DOULS THESE DANS??

# ZITS





the supernatural – "the world is big enough for us, no ghosts need apply" – Low is open to its place in the world of modern crime

fighting. By the series' close, Low has seen off an array of ghosts, mummies, occult societies, killer plants and diabolical master criminals.

Low is not the first 'occult detective' in the detective genre that accolade belongs to LT Meade and John Eustace's John Bell, who appeared in 1896 - he is the first investigator whose work accepts or proves, rather than disavows, the existence of the ghostly and occult forces behind the crimes he investigates 5. The Brotherhood of the Sev en Kings (1898)

While The Strand had many regu lar contributors who stepped in to supply detective fiction after Holmes's 'death' (notably all men), Irish writer Elizabeth Thomasina [LT] Meade went on to become the magazine's most prolific contributor of crime stories in the late Victorian and early Edwardian period, with six series published between 1893 and 1903.

In this series of stories Meade adds a gendered twist to the master criminal narrative with the creation and portraval of a powerful female antihero Madame Koluchy. Much like Dovle's Moriarty, Koluchy is a scientist and a doctor, as well as the chief and queen of the Brotherhood of the Seven Kings, a nebulous Italian political organisation responsible for terrible crimes on English soil

She harnesses her scientific skills to carry out a series of deadly crimes utilising, among other things, x-rays, untraceable poisons and a virus carried by the tsetse fly, challenging the skills and authority of the very best British detectives.

> This article first appeared on Scroll.in

By Jerry Scott & Jim Borgman

