22nd May 1948, Jimmy’s song is broadcasted on radio but it echoes in the hearts of millions. Jimmy becomes the mascot of cancer just as planned by Sidney Farber (The Doctor of the Dead).

Sidney Farber (the science man) and Mary Lasker (the social woman) stand at the epicentre of the battlefield in the war against cancer. Even with a defined centre though, the boundaries are hazy, limitless and infinite and herein lies the theme of Mukherjee’s epic on the Emperor of all Maladies: the infinite reach of cancer.

Mukherjee dedicates his book to “Robert Sandler” and to all those who fought and continue to fight against cancer. In 1947, two year old Robert was the first leukemic patient to be tested with Farber’s antifolates. Robert even responded to aminopterin, though his cancer relapsed. The journey till the antifolates was not an easy one and it took decades after decades to traverse the path from the identification of cancer 4000 years ago to what is known of cancer today.

This journey, like a chronology of science itself, has been divided into six parts, conveying the life (but not the death) of cancer (not as a disease but as an individual). It is a journey of researcher’s, clinicians and patients, not forgetting the authors’ own leukemic patient in 2004: Carla, whose disease kick starts the story of cancer narrated by Mukherjee.

Part I of the book traces the changing theories regarding the origin of cancer and where and how each went wrong. From the time of Galen’s (160AD) “OF BLACKE CHOLOR WITHOUT BOYLING” where he described cancer as an entrapment of black bile leading to tumours till Bennet’s description of leukaemia as a “Suppuration of Blood”, cancer displayed one unifying feature: that of cell growth without any barriers.

Patients had two options to choose from: either the hot rays or the cold knife. But were they options indeed? Rays could kill cancer but they could even give birth to cancer. The knife on the other hand was a formidable nightmare with Halsted’s radical surgery procedures. But there was one ray, a ray of hope, as cancer emerged from the dingy basement of Farber’s laboratory to become the cynosure of all eyes (in the negative sense of course). Just one thing was lacking: MONEY, i.e. funds for research. Here started an “IMPATIENT WAR ON CANCER”, and Part II of the book.

The cancer crusade was joined in the 1950s by Mary Lasker, a rising social star and the fairy Godmother of medical research. Mary Lasker was a conspirator in the finest sense of the word and to add to it she was accompanied by a co-conspirator in the form of her “advertising genius” husband, Albert Lasker. The two were set to change the face of American Society for the Control of Cancer (ASCC) in the form of a “lay group” of non medical representatives, The Laskerites. Mary Lasker had to sell “the cancer issue” to the public to generate funds for research. She gave the war on cancer, the attention and power of the media and during the course of this war, the iconic figures of Farber and Lasker were personally affected by cancer. Farber was a supposed cancer survivor himself and Lasker lost her husband at the hands of cancer but neither of them prioritised their personal battles above the battle of cancer. Their twenty year long crusade marked a very active phase in cancer research with two unifying theories of cancer culminating at one point. The first theory pointed at one cure (multi drug doses) and the second theory pointed at one cause (viruses). But the connection was lacking and so was Farber-Lasker’s dream national movement for cancer. So, to fulfill that need, Mary Lasker unleashed her final force of media power. Lasker’s tactful brilliance shook the President as the public demanded answers and medicines.

The 1970s marked that era where cancer was not just changing lives, it was now being reflected in the politics, literature an even the entertainment of the common man.

Farber-Lasker’s cancer war culminated in 1971 with a National Cancer Act- a compromise wherein funds would be plenty but independence would be restricted. Lasker lost her passion for cancer and Farber breathed his last on 30th March 1973. But cancer was never a battle of two people. It was a question which millions of patients were asking their doctors, “WILL YOU TURN ME OUT IF I CAN’T GET BETTER?” and so starts Part III of cancer’s journey which was full of such questions. Carla opened her eyes to a new world; her three phase chemotherapy had worked. Her remission, as Mukherjee noted, was stable. This dawn of Carla’s life was significant in the author’s life and the dusk of Farber’s life was significant in cancer’s life.

Post 1973, old theories were being questioned, “Were radical mastectomies really needed or would lumpectomies do for breast cancer?” Or “Did the smiling oncologist stop and think that cure was killing cancer and also his patient?” It was the era of women liberation. Science and numbers have always played games and numbers told the truth. Cancer was not being defeated. The preventive tools were missing! Here starts Part IV of the book where “PREVENTION IS THE CURE” and here comes the genius of Mukherjee’s narrative as all the “thinkers” of the world are forced to rethink, to question old school beliefs and to question again till truly satisfied with an explanation.

It was such questions which led to the realization of environmental carcinogens like tar, smoke, asbestos etc. It was such “never say die attitude” that gave the world a screening test for cervical cancer, in the form of “Pap’s smear”, even though Papanicolou was laughed at when he first conceived this idea. It was this urge that made Marshall swallow a culture of Heli-cobacter pylori to prove his point.

Among all these questions and answers entered the AIDS epidemic in 1981, and as the paths of AIDS and cancer crossed, one thing became clear, that cancer was not a singular disease. It was a spectrum and the only thing common in all cancers was an abnormal cell. Part V of cancer’s story acquaints us with the fact that cancer cells are: “A DISTORTED VERSION OF OUR NORMAL SELVES”.

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**Pulitzer winner-2011**

**The Emperor of all Maladies: A Biography of Cancer**

Siddhartha Mukherjee

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Reviewed by Himshikha Bhutani

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A year after her diagnosis in 2005, Carla’s life was returning to normal. But the scientific world of the 1880s was just beginning to understand the words “genes”, “chromosomes”, “DNA” and then came the view of “abnormal chromosomes” and “mutations”. Cancer theories were beginning to conflict now, “Did exogenous agents cause cancer or were the roots of cancer hidden in our own genomes?” Finally, the correct answer came in the summer of 1976 and it changed the shape of cancer biology forever. It was realised that cancer was a “load” (oncos) which was being carried by humans in their own genomes. It was just awaiting activation to convert into an abnormal monstrous version of ourselves.

Mukherjee makes a connection here and teaches us a lesson. He notices that the clinical and laboratory worlds were two separate planets. If only they had come together in time science would have emerged as a winner. Nevertheless, nobody had laboured in vain. Just as Part VI of the book elaborates, “THE FRUITS OF LONG ENDEAVORS” were finally borne. Jimmy, the cancer mascot had returned after almost 50 years. Yes, he was alive! 1998/99 saw a “socially networked” world and it also saw Ehrlich’s fantasy of “magical bullets” being fulfilled in the form of molecularly targeted specific drugs like “Herceptin” (for Her+ breast cancer) and “Gleevec” (for chronic myelogenous leukaemia (CML)). But cancer was never evaded. Just like the Red Queen of Lewis Carroll’s *Through the Looking-Glass*, researchers have to constantly keep moving to stay in touch with the ever mutating cancer.

In the end it’s just like Mukherjee says, “what you have to evade is not death but premature death”. Cancer tends to become the normalcy of your life once you are associated with it. Either as a researcher or a clinician or a patient, you practically live, eat and pray cancer. One can hardly disagree with Mukherjee when after 5 years of Carla’s battle with cancer he moves to “sever the force” locking him and Carla together.

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