

# Short Story Research - Mariana Maytorena

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1. Find articles that looked potentially useful
  2. Make a resource list so I could see every resource in a single spot
  3. Make a "Golden Facts" collection for each resource
    - a. **Golden Fact:** information that helps with world-building or story development.
  4. I highlighted the **Golden Facts**, **Golden Lines**, and **sparks** that I actually want to use in my piece.
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## Resource List:

Live Science: Radiation treatment

<http://www.livescience.com/50288-5-reasons-radiation-treatment-has-never-been-safer.html>

Life Science: Cancer

<http://www.livescience.com/34782-malignant-mesothelioma-asbestos-lung-cancer.html>

SXSW: Aeromobiles:

<http://www.popsoci.com/sxsw-2015-forget-self-driving-cars-future-self-flying-cars>

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## Golden Facts Collection

### Radiation Treatment

"High-energy radiation kills cancer cells by damaging DNA so severely that the diseased cells die. **Radiation treatments may come from a machine (x-ray or proton beam), radioactive material placed in the body near tumor cells, or from a fluid injected into the bloodstream. A patient may receive radiation therapy before or after surgery and/or chemotherapy, depending on the type, location and stage of the cancer.**"

- Remember learning this in Biology class
- This paragraph will be useful in my story so the reader can know what radiation is and that it is not normal for a person to spread radiation normally, but I want to add it in a way that does not show that I am informing them about it.

"Today's treatment options target radiation more directly to a tumor — quickly, and less invasively — shortening overall radiation treatment times. **And using new Internet-enabled tools, physicians across the country can collaborate by sharing millions of calculations and detailed algorithms for customizing the best treatment protocols for each patient.** **With just a few computer key strokes, complicated treatment plans can be anonymously shared with**

other physicians at remote sites who have expertise in a particular oncologic area. Through this collaboration, doctors offer their input and suggestions for optimizing treatment. In turn, the patient benefits from a wide community of physicians who share expertise based upon their research, clinical expertise and first-hand experience.”

- The last sentence can be added in some way that describes how the scientists in my story are researching how it's possible for a human to give out radiation and cure cancer
  - Scientist getting together to figure out what is wrong with super hero
- Instead of using new tools, the new tool will be the super hero that wanted to have radiation

“Prostate cancer treatment involves delivering a dose of radiation to the prostate that will destroy the tumor cells, but not adversely affect the patient. A new hydrogel, a semi-solid natural substance, will soon be used to decrease toxicity from radiation beams to the nearby rectum. The absorbable gel is injected by a syringe between the prostate and the rectum which pushes the rectum out of the way while treating the prostate. As a result, there is much less radiation inadvertently administered to the rectum through collateral damage. This can significantly improve a patient's daily quality of life — bowel function is much less likely to be affected by scar tissue or ulceration. [Facts About Prostate Cancer (Infographic )]”

- Radiation will not affect the patient, it will affect the super hero though.

## Cancer

“Malignant mesothelioma is a rare type of cancer that grows in the thin layer of tissue that covers the heart, lungs and other internal organs. This membrane, called mesothelium, protects organs by making fluid that allows, say, the lungs to move while breathing. According to the Mesothelioma Cancer Alliance, there are three varieties of malignant mesothelioma: pleural mesothelioma, which occurs in the the lung's lining, or pleura; peritoneal mesothelioma, which occurs in the abdominal cavity wall, or peritoneum; and pericardial mesothelioma, which occurs in the lining of the heart, or the pericardium. Malignant pleural mesothelioma is the most common type, with about 70 percent of mesothelioma diagnoses. Another 15 percent to 20 percent of diagnoses are for peritoneal mesothelioma, while pericardial mesothelioma represents about 10 percent of diagnoses.”

- Helpful to know the different ways that cancer can exist
- Add the casues of the little girl in the story

“Mesothelioma, no matter the type, is rare, with about 2,000 or 3,000 people in the United States getting a diagnosis each year, according to the American Lung Association. The main risk factor for malignant mesothelioma is contact with asbestos. Asbestos is a natural, fibrous silicate mineral found in rock and soil that is heat resistant and very durable. It was once used in everything from insulation to car parts until its danger became better understood in the 1970s. According the American Lung Association, 70 percent to 80 percent of those diagnosed with mesothelioma had heavy contact with asbestos.”

- The Super Villian can also be soredading Abestos, so kids can get cancer.
  - Also have him spread “bad” radiation so it could be different
- What does it mean by heavy?
  - Like had contact with asbetos several times
    - What is asbestos?

“Asbestos exposure through work with insulation, construction, shipbuilding or textiles or exposure to soiled clothes of an asbestos worker results in a six-fold increase in the risk of developing lung cancer and mesothelioma,” said Dr. Megan Baumgart, an assistant professor in the department of medicine, hematology/oncology at the Wilmot Cancer Institute in Rochester, New York. “This risk is significantly higher in those who smoke in addition to asbestos exposure.” What makes asbestos so dangerous is that its fibers are microscopic, up to 1,200 times smaller than a human hair, according to the Environmental Protection Agency. The small particulate size makes asbestos easily inhaled. The tiny fibers enter the body, and then lodge in the internal tissue of the respiratory system, such as the lining of the lungs and inner cavity tissue. The body has a hard time getting rid of the particles once they are lodged into tissue.

- It is probably harder for kids to get exposure to aspestos?
  - Unless the Super villian takes the fibers to the kids so they can breath them in
- Add a little information about asbesos and why the super Villian takes them to breath it

Symptoms typically show up 35 to 50 years after asbestos exposure, according to the American Lung Association. So, by the time a person is affected by mesothelioma they are typically over the age of 65. Symptoms differ depending on where in the body the cancer grows. In pleural mesothelioma, which affects the tissue around the lungs, symptoms include chest pain under the rib cage, shortness of breath, painful coughing, unexplained weight loss and lumps of tissue under the skin on the chest, according to the Mayo Clinic.

- Maybe I could change this that after exposure you get affected by it after a month or less.
- I can use symptoms to describe what the little girl is feeling

Though there are many symptoms of mesothelioma, it is hard to diagnose because many of the symptoms are shared by other diseases. A doctor will typically check for lumps during a physical checkup and may also order X-ray and computerized tomography (CT) scans to determine if the patient's body has any abnormalities consistent with mesothelioma. If the doctor suspects mesothelioma, a biopsy of the affected area may also be ordered, according to the Mayo Clinic. If mesothelioma is diagnosed, then the doctor will "stage" the diagnosis, meaning the cancer will be defined by severity. According to the American Cancer Society (ACS), staging is broken up into three categories called TNM. The "T" stands for the extent that the primary tumor has spread. The "N" stands for how much of the cancer has spread to nearby lymph nodes. "M" stands for whether the cancer has metastasized, which means the cancer spread to other organs.

- Helpful to see what stage the little girl is in, when super hero wants to help her
  - yet he doesn't really need to know

## [Aeromobiles](#)

In October 2014, Slovakian company AeroMobil unveiled a prototype vehicle that exhilarated *Back To The Future* fans, as well as pretty much everyone else: the long

**fantasized flying car.** Dubbed AeroMobil 3.0, the car/plane hybrid showed off its driving and flying abilities in a video filmed at the 2014 Pioneers Festival in Vienna. **With its wings tucked in, the carbon fiber vehicle drives the streets seamlessly with other cars.** Then, it makes its way to a parking lot, unfolds its wings, and takes off from a grass runway. It soars leisurely over the buildings of Vienna, before touching down in a green field.

- Instead of the aeromobile looking like an airplane it is going to look exactly like a car, except it is going to have some sort of windmill under the car so it can fly

**\*\*\*\*Look for more aeromobile articles\*\*\*\***

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### Facts I need for my story:

- Symptoms the little girl has because of the radiation the super Villain gave her.
- How will cars fly in the sky with out hvaing wings
- Explain how the super hero have radiation, and what is radiation
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