Creative Brief

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Project Title: Marie Curie Website

1. **Project Overview**
   The goal of this website is to be informative and highlight the main research discoveries of Marie Curie that lead her to win 2 Nobel Prizes (the only person to do so in two scientific fields). I would also like to focus on her efforts to overcome gender stereotypes as a female researcher and xenophobia (as a foreigner) in France.

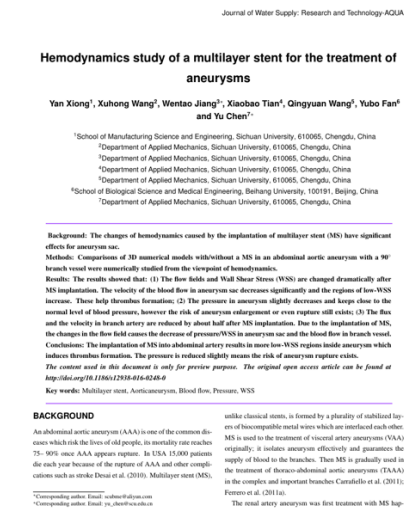
2. **Resources**
   Context text and some photos will be edited and referenced from https://en.wikipedia.org/wiki/Marie_Curie. Additional photos will be sourced from Google

3. **Audience**
   This will be an informational site with not commercial promotion. This will be part of my portfolio and so instructors and prospective clients will likely see it. The website will be appropriate for all demographics, but the information will likely appeal to students interested in science, especially female students and other underrepresented groups in STEM and research.

4. **Message**
   I would like to focus on Marie Curie's legacy as the first female to win a Nobel Prize and for her important contributions to chemistry and physics. She also has made some contributions during WW1 and was noted to have a modest lifestyle.

5. **Tone**
   The tone for this website will be of admiration and respect. I hope to inspire students especially those of females/underrepresented groups to overcome obstacles and preserve doing what they enjoy.

6. **Visual style**
   I'm leaning towards a more historical, black and white feel (at least for the homepage as I imagine there to be a black and white photo of her). I would also love to have the subpages to be inspired by a scientific journal with footnotes and citations (that would be from the Wikipedia page) (see below). Page design could also have influences of Marie Curie's journal entries and look like a lab journal.



Journal of Water Supply: Research and Technology-AQUA

Hemodynamics study of a multilayer stent for the treatment of aneurysms

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Background: The changes of hemodynamics caused by the implantation of multilayer stent (MS) have significant effects for aneurysm sac.
Methods: Comparisons of 3D numerical models with/without a MS in an abdominal aortic aneurysm with a 90° branch vessel were numerically studied from the viewpoint of hemodynamics.
Results: The results showed that: (1) The flow fields and Wall Shear Stress (WSS) are changed dramatically after MS implantation. The velocity of the blood flow in aneurysm sac decreases significantly and the regions of low-WSS increase. These help thrombus formation; (2) The pressure in aneurysm slightly decreases and keeps close to the normal level of blood pressure, however the risk of aneurysm enlargement or even rupture still exists; (3) The flux and the velocity in branch artery are reduced by about half after MS implantation. Due to the implantation of MS, the changes in the flow field causes the decrease of pressure/WSS in aneurysm sac and the blood flow in branch vessel.
Conclusions: The implantation of MS into abdominal artery results in more low-WSS regions inside aneurysm which induces thrombus formation. The pressure is reduced slightly means the risk of aneurysm rupture exists.

Key words: Multilayer stent, Aorticaneurysm, Blood flow, Pressure, WSS

BACKGROUND

An abdominal aortic aneurysm (AAA) is one of the common diseases which risk the lives of old people, its mortality rate reaches 75– 90% once AAA appears rupture. In USA 15,000 patients die each year because of the rupture of AAA and other complications such as stroke Desai et al. (2010). Multilayer stent (MS), unlike classical stents, is formed by a plurality of stabilized layers of biocompatible metal wires which are interfaced each other. MS is used to the treatment of visceral artery aneurysms (VAA) originally; it isolates aneurysm effectively and guarantees the supply of blood to the branches. Then MS is gradually used in the treatment of thoraco-abdominal aortic aneurysms (TAAA) in the complex and important branches Carrafiello et al. (2011); Ferrero et al. (2011a).

The renal artery aneurysm was first treatment with MS hap-

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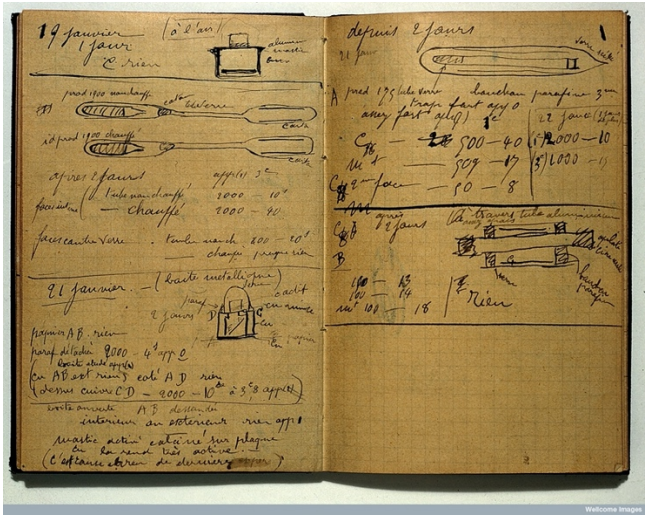
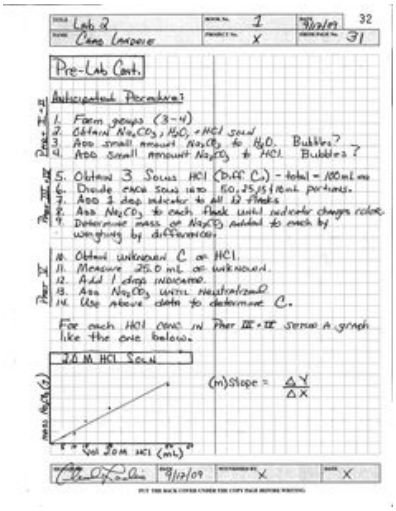
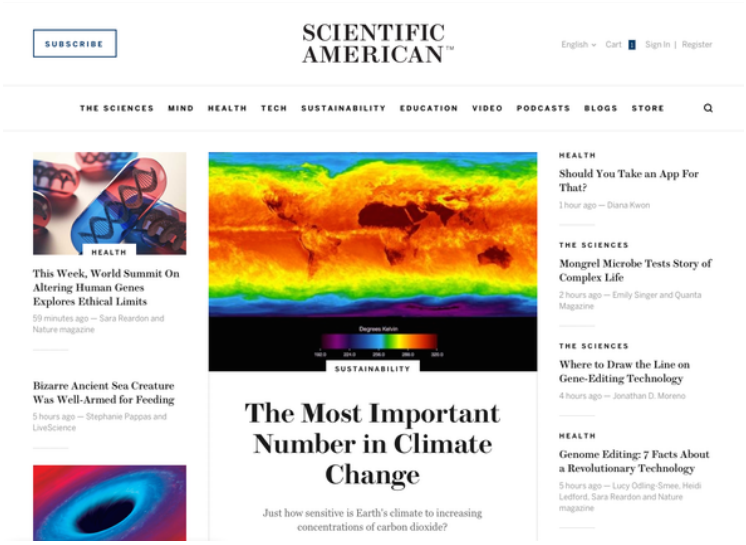
This may be too visually dense for a webpage as I don't have to include to much information from the Wikipedia page so instead the page design may just mimic the format of a scientific journal article (rather than all of it)





This is one of Marie Curie's journal entries (left). Visually I don't think this would be the most clear and appropriate for a website but this could be used as images within a webpage. I imagine that the website background could be like a lab notebook page (similar color, gird pattern and header design as seen in the right image).



I really like this website layout of Scientific American (a contemporary science journal). I enjoy the modern and simple visual style. I think generally visual styles of scientific paper are no-frill and more to the point, which would be a guiding principle for this webpage as well.