## A brief overview of Multiple Myeloma

Matthew Butler, MD



UT Health MDAnderson San Antonio Cancer Center

#### What is multiple myeloma?

- We all have special blood cells in our bone marrow called "plasma cells"
- These cells make antibodies to protect us from infections
- Occasionally, one of these cells makes a mistake ("mutation"), and begins to grow and make copies of itself when it shouldn't
- When the copied cells, all containing the same mutation, accumulate to the point that they damage the body, it becomes a cancer called multiple myeloma



Images: UCSF, http://kintalk.org/genetics-101/

#### Why does myeloma happen?

- For the most part, the mutations that lead to myeloma (and most other cancers) happen for no reason other than sheer bad luck
- Some families, and people who are heavily exposed to certain chemicals, seem to be at slightly higher risk
- However, this disease can happen to anyone, even without any risk factors



### What does myeloma do?



#### How is myeloma diagnosed?

- Myeloma does not generally show up in routine blood work, though these may provide clues.
- It can usually be detected by specialized tests of the blood or urine.
- The early signs of myeloma can be subtle. It often takes some time before the right tests are done.
- Once myeloma is suspected based on lab tests, a bone marrow biopsy is done to confirm the diagnosis and to learn more details about the person's unique disease.



#### Is there a cure for myeloma?

- Unfortunately, no. At least, not yet.
- Even with the best treatments, almost everyone who gets myeloma will have it for the rest of their life.
- BUT...



#### Myeloma is highly treatable!

- As recently as the late 1990s, people who got myeloma rarely lived more than a few years
- Since then, there has been a series of treatment breakthroughs that allow people with myeloma to live longer and better
- With modern treatment, it is now common to live 10 years or even longer with the disease
- During those 10 years, we hope that new discoveries will extend life further, and perhaps even offer a cure



# Questions?

