**ArgenTag**

**What’s the product?**

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| A barcode technology that improve single cell sequencing using tools form information theory |
| The product is a technology for cancer. |
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| A QR technique to better identify cancer cells. |
| a program capable of reading the genetic information and sequence of each tumor cell present in a type of cancer. |
| Powerful base technology. But not yet clear what the product form will be, not the path to reach this point? |
| Scalable real-time long-read single-cell sequencer |
| A single cell genomics platform to assess cancer heterogeneity |
| Kit(?) for Dx for cancer  |
| Technology to get genetic information from many cancer cells to predict cancer behavior |
| Tumor expression profiling |
| Library or barcodes to perform better genomic single-cell analsis. Unclear if there is hardware associated to it. |
| Real time single cell sequencing to identify the heterogeneity of a cancer cell population.  |
| Long-read DNA sequencer of tumor cells  |
| A single cell analysis pipeline for cancer analysis. |
| single cell identification |
| Barcoding technique that allows long-sequencing of single-cancer cells. |
| Single Cell Cancer solution for reading long sequences.  |
| Not sure - a system to do single cell sequencing? |
| Molecular profiling for cancer with single cell long-read sequencing equipment |
| A method to cure from cancer? |
| Cancer diagnosis |
| A DNA barcoding system to identify unique cells and characterize the properties of these cells. This allows sequencing of long DNA sequences on lower cost sequencers. |
| Gene sequencing  |

**What’s the problem they are trying to solve?**

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| Solve errors in single-cell sequencing |
| Try to identify the best cells to have a better treatment.  |
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| Identify the cells for a better treatment |
| the genetic variation present in a type of tumor that may result in the treatment used being ineffective against cancer. |
| It will help to have more detail as on the scale of the problem. |
| address the heterogeneity of cancer cells by sequencing single cells while managing the information and minimizing errors using a propriety tagging method to recommend the most appropriate cancer therapies which take a long time and currently not always effective. |
| I guess better treatment selection, but I’m not totally convinced that would be the case |
| Issues with sequencing that stop from seeing the full heterogeneity of the tumor. |
| To get that information faster, cheaper and with a good statistics of data |
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| Fast single-cell sequencing. |
| Identifying genetic characteristics and heterogeneity of a cancer cell population to optimize selection of cancer treatment and the best outcome for each patient. |
| Cancer characterization in real-time, affordable, without errors.  |
| Overcome the difficulties in using standard methods, lowering errors in current technology. They also state they can lower time windows while improving outcomes. |
| heterogeneous cancer cells |
| It lowers the cost and efficiency of cancer treatment. |
| Errors in DNA sequencing of many cells. |
| Long reads? |
| Real time tagging center cells |
| Cancer |
| Cancer detection |
| The more cells that need to be read the more errors are generated. This is particularly an issue in cancer as the cells are very heterogeneous.  |
| Cancer genomics |

**Comments/Questions**

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| The presentation should be more detailed in the technical part, which is your main contribution, It is too broad, although it sounds very interesting. |
| I don't understand if it is an app, hardware, or research. |
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| I think it is a very interesting project but I am worried that technologically it is too complex to develop it. |
| The paths to commercialization may be multiple. It will be important to clarify the applications and use cases which will define you first phase. Even if other I use cases follow later. To define the launch use cases will involve clinical, technological, and commercial factors. What are you early thoughts about these questions? |
| briefly, how does argentag manage to perform much better than other barcoding strategies? What unfair competitive advantage do you have? |
| Is your platform limited by the hardware available for reads? Does your tech enable the development of a more deployable and cost effective piece of hardware? You made a case that access to tests like this is a problem but it’s unclear how you address that without hardware as well. |
| Will you partner with people to develop a diagnostic? Will this be a service? How do you think of integrating this technology into the current market? How will the data help you tailor therapy, determine prognosis etc? Why is the long read sequencing more important for Dx? [Ex. you mentioned There are other barcoding technologies, how does this differentiate? Do you forsee the need for the long read sequencing for the actual diagnostic or just for the discovery phase? If you will be able to narrow down the Dx to a smaller list of elements after the investigation, do you still need this as a Dx or a scientific tool?Does this work with clinically approved sequencers? Are there long read sequencers? |
| What evidence is there that assessing the heterogeneity of the cancer improves treatment?I can see the use-case on research settings. Fast single-cell sequencing. However, the link to cancer treatment is not clear.I take that you use some error-correcting-codes taken from information therapy. Seems like a generic technique, with as many implementations as error correcting codes are there. Does your IP protect you from other company using other error-correcting codes? |
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| Good support from Scientific Publication. I would recommend to get information about companies that are working in this field, and learn from how they are promoting their products, how much many they have risen, ...Specific Questions:How many companies do you know that may be direct competitors? How do you differentiate from them? |
| What do you mean by real time? Also, is real-time actually needed in such scenario? Treating cancer is a long-lasting process, and maybe waiting for a day or two to get the results, if they are extremely accurate, is better than a real-time solution. Can your method be adapted to "use" more time and achieve higher accuracies?Also, I know IP and patents are important, but if you want experts to discuss and help you advance, you should be more transparent and trust the people you are "asking for help". |
| What are the main reasons for the current unaffordable cost and how can you achieve affordable cost in your technology? |
| I would like to know the stage of the development and the main milestones ahead. |
| 1) What are the economics of your solution: Who buys, who uses, what is competitive status?2) I did not fully understand the technology: synthetic DNA tags and how they work. 3) What is the Intellectual Property? |
| It is unclear if you are actually solving a technical problem (more efficient/cheaper single cell reads) or a diagnostic problem (for what?) |
| I am not sure how the cells are tagged with the barcodes. Why does this mean you’ll get a better profiling by looking at each individually cell |
| 1. Don't read the slides while presenting 2. Talking about cancer or how to treat it could be explain with a real case of a patient and how you will solve the problem... normally the audience are not technical in your field and are not going to understand what you are explaining. Rule nº1 know your audience |
| **From the chat question burst:** |
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| Cancer heterogeneous – and you want to get single cell info from every cell? This seems like a different question than getting long reads. How does having a long read enable better diagnostics?  Is there a particular cancer type where this would be most valuable? How do you know you have an error free (or reduced error) read?Seems like the technology is a set of reagents and software. Does the technology work with any hardware?What evidence is there that assessing the heterogeneity of the cancer improves treatment?How is this different from other barcoding strategies? What makes this better for Dx?Briefly, how does argentag manage to perform much better than other barcoding strategies? What unfair competitive advantage do you have?Is the idea the sequencing innovation or the ability to better define tumor colony genotypes? Like @Ne Myo, how much faster are you than PacBio or Roche's SBX program?Does this work with clinically approved sequencers? Are there long read sequencers?How many companies do you know that may be direct competitors? How do you differentiate from them? Do you foresee the need for the long read sequencing for the actual diagnostic or just for the discovery phase? If you will be able to narrow down the Dx to a smaller list of elements after the investigation, do you still need this as a Dx or a scientific tool?It would be good to see some clinical evidence that outlier detection helps with therapy. It feels like this tech would result in the use of more drugs - not fewer and more targeted drugs. More information and more data does not always equal more clinical impact. Would be great if it does in this case though! |