Elements of an effective abstract for a scientific meeting

A meeting abstract is typically a work in progress and new never seen before approaches and preliminary data – the abstract does NOT have to reflect a complete manuscript-worth of information (ie a complete story).

Composition of an effective abstract

Background: the background can be framed in just 2–3 sentences, with each sentence describing a different aspect of the information.

1. State what is already known about the problem related to the work you are doing, or question you are addressing.
2. State what is not known about the subject and hence what your study examines or seeks to answer (ie, this is related to your major hypothesis.

Methods: Describe the approach and methods you are using. Provide enough information to enable the reader to understand not only the general approach and study design, but how each method used (genomic screening, biochemical assay, cellular assay, clinical outcome…etc) was done, and how they interrelate. Important questions to which the methods section should provide brief answers include (when relevant):

What was the research design? in vivo, in vitro, ex vivo, other?
What was (were) the genotype(s) and/or clinical diagnosis of the research animals or patients included in the study? Include information about sample size and group definitions (genotype, drug vs control, dose etc…).
What was the setting of the study and how were sample obtained and from which tissue? If cells or cell lines were used, define there origins.
What were the outcomes that were measured?
What statistics were used for analysis?

Results: It is not expected that you have an appreciable amount of data from the short amount of time you spent on the STAR project; especially if it is your first STAR project. Don't sweat it! The results should not do beyond what you have done at the time you write the abstract. In some situations, the results can include data that has been generated by a coauthor on the abstract, but this needs to be agreed to by all involved. This is an important section of the abstract and nothing should compromise its quality or veracity. The data presented in the abstract can be preliminary but it should not stray too far from the data you actually have in hand (ie, don't speculate on data you think you might have three weeks from now). If you have preliminary data that has been statistically analyzed, present them quantitatively rather than qualitatively. For example: "Response rates differed significantly between diabetic and nondiabetic dogs." A more

meaningful sentence might be "Preliminary result indicate a higher level of lactate in diabetic than nondiabetic patients (xxx vs yyy, respectively; *P*<0.05)."

Conclusions: This section should contain the most important take-home message of the you study, expressed in a few precisely worded sentences (bullet points are good). It is OK to include or even highlight important or unexpected findings and challenges. It is also OK to include a sentence about the ongoing experiments. A final sentence about the practical implications of your findings, or from ongoing experiments/analyses and their importance to the field is a good way to end the abstract. Conclusions typically contain three elements:

The primary message you want reader to take away with them

The findings or challenges of importance

A perspective of how you interpret your findings to date (Do Not be overly speculative)

MAKE SURE THAT YOU STICK TO THE WORD OR CHARACTER LIMIT and COMPLY WITH FORMAT