



## GUIDE TO WRITING A LAY SUMMARY

### What is a lay summary?

A lay summary is a brief summary of a research project that is used to explain complex ideas and technical and scientific terms to people who do not have prior knowledge about the subject.

A lay audience is diverse and includes members of the general public, people living with MS donors, and researchers in different disciplines that could be potential research collaborators.

A lay summary is intended to explain why the research is being suggested, what researchers aim to achieve and how this may impact the rest of the research community and the quality of life of people with MS. Typical summaries might discuss the purpose of the research, its relevance to MS, and the proposed methodology.

### How are lay summaries reviewed by the MS Society?

The MS Society engages the scientific and clinical communities as well as those affected by MS in its research grant review process. Individuals affected by MS on the Grants Review Committees are called Community Representatives.

Community Representatives provide a mechanism for ensuring good communication to public stakeholders and transparency of the peer review process. They review the lay summary, relevance to MS and the brief project description of each application.

Community representatives do not score applications; they address the extent to which the **proposed research is well explained, in a language clear to members of the general public and comment on the proposed research projects relevance to MS.** Community representatives make recommendations to revise sections of the application that are intended for lay audiences if they are not deemed understandable. Grant Agreements for applications approved for funding by the Medical Advisory Committee are subject to the receipt of the revised lay documents, where the case.

### Why is it important?

A lay summary is important for a variety of reasons.

- Explains research to lay audiences with an interest in MS
- Raises awareness of current studies funded by the MS Society

- Increases participation in research of people living with MS
- Demonstrates accountability to donors and funders for the use of funds
- Helps attract the support and confidence of the public

### **How is the lay summary used by the MS Society?**

Lay summary are being used by the MS Society for communication purposes including but not limited to:

- Web information about current research being funded
- Press releases
- MS Society Publications

### **Tips to write a good lay summary**

- Try to explain your research in 25 words and then use this as your first sentence.
- The text should provide answers to the essential questions: Who, What, Where, When, Why and How?
- Give the reader a reason to care about what you do- address the “so what?” Focus on the relevance, the application of the benefits of your research for people living with MS; why is the work important to them?
- Provide context. Give concrete everyday examples. Paint a picture for the reader.
- Write in active voice.
- The language used should be person centered rather than focusing on the circumstance, illness or disability. For example “people with MS” preferable to “MS sufferers”; a person “has MS” rather than “is a victim of MS”.
- The text should be ordered logically and flow naturally. For example, ideas should be introduced as they are required, and new ideas usually should not be introduced late in the text.
- Use short, clear sentences (25 words or less) and avoid complex grammatical structures.
- Minimize the use of jargon, scientific and technical terms and acronyms. If this is unavoidable, provide explanations.
- Grammar and punctuation should be accurate and spelling should follow appropriate conventions.
- Avoid complex terms and phrases and use plain English.
- Find someone who is not in your field to read over the summary. Get feedback on your draft from colleagues, supervisors and at least one non-specialist to your field.
- Respect the length requirements for the lay summary.

Use simple words and cut out unnecessary words. Here are examples of words and phrases that can be simplified in order to make it easier to understand for a reader:

- Participate in – take part
- Prior to – before
- Discontinue – stop
- In the event of – if
- Duration – time
- Inform – tell
- Scheduled to undergo – due to have
- Accordingly, consequently – so

- With reference to, with regard to – about
- If this is the case – if so
- For the purpose of – to

### Examples of Simple Explanations of Scientific Terms

- **Apoptosis** – How cells die
- **Axon** – Also known as a nerve fiber. An axon is a long, slender projection of a nerve cell that transmits information to other surrounding nerve cells
- **Autoimmune** – When cells of the immune system mistakenly recognize and attack substances naturally present in the body
- **Blood Brain Barrier (BBB)** – A protective layer that prevents most large molecules and cells found in the blood from entering the brain tissue
- **Cell** – The basic structural, functional and biological unit of all known living organisms
- **Central nervous system (CNS)** – A network of nerve cells that make up the brain and spinal cord. This system is responsible for neurological processes which govern basic activities such as thinking, feeling, learning, seeing, and moving
- **Clinical trial** – A test in medical research and drug development that collects data on the safety and efficacy of a particular health intervention
- **Cognition** – A group of mental processes that includes attention, memory, producing and understanding language, learning, reasoning, problem solving, and decision making
- **Cytokine** – A small molecule that directs the movement and actions of cells in the immune system
- **Demyelination** – Process during which myelin is stripped from nerve fibers
- **Differentiation** – The process by which a cell undergoes development to exhibit specialized properties and actions
- **Drug target** – Something in the body that is changed by a drug to give a desirable effect
- **Experimental autoimmune encephalomyelitis (EAE)** – An MS-like disease created in laboratory mice
- **Efficacy** – The ability to produce a beneficial effect
- **Expression** – How genes encode molecules
- **Inflammation** – A complex biological response that is initiated by the body's immune system to protect it against harmful agents

- **Lesion** – A wound to body tissues. In MS, a lesion which occurs in myelin of the central nervous system is called a plaque
- **Magnetic resonance imaging (MRI)** – technological tool that shows images of soft tissue in the body in greater detail
- **Mutation** – Sudden and permanent change in the genetic makeup of a cell
- **Myelin** – A fatty protein that covers and protects nerve fibers in central nervous system
- **Oligodendrocytes** – Cells in the CNS that make and maintain myelin
- **Pathway** – A cascade of chemical reactions that instructs a cell on how to behave
- **Proteins** – Biological molecules that can perform an array of functions within living organisms
- **Remyelination** – A process by which myelin is reformed following injury
- **Signaling** – Ways that cells communication with each other

*Last revised July 26, 2013*

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