Researchers obtain many benefits from their work. Other than contributing to career advancement and respect among their peers, they also get personal satisfaction from advancing knowledge and benefitting society. However, sometimes personal or professional interests may interfere with the researcher's commitment to responsible conduct of research. This is known as conflict of interest.

Conflict of interest is defined as a situation that creates a risk that professional judgment or actions regarding a primary interest may be compromised or appear to be compromised or has the potential to be compromised by a secondary interest.

In the case of research, it means that risk of prejudice on the part of the investigator may result in a “problematic” investigation. Conflict of interest in research is a situation that creates a risk that the investigator's professional judgment in conducting and reporting a relevant and unbiased research has the potential to be compromised by another interest such as financial gain, personal interest or career advancement. Such conflicts of interest are considered “potential” conflicts as they do not necessarily cause biased results but increase the risk of bias.

Financial conflicts of interest are particularly prevalent in industry sponsored clinical trials. In industry sponsored clinical trials, industry stands to gain by increasing profits and share prices and the investigator/s stand to gain by study funding, monetary payments, consultancies, share ownership, advisory board membership, patents etc.

Personal conflicts of interest are usually to do with peer pressure and career advancement such as opportunity for publication, promotion / tenure / appointments, funding / grants, and respect of peers but could be as trivial as personal satisfaction or obsession with a pet theory.
How can conflict of interest result in bias in research? Bias may occur in the choice of the research topic, such as testing one product over another. It may occur in the choice of study design or protocol or even selection of research participants to ensure positive results. It may even occur during collection, analysis and interpretation of data and reporting of results and such biases may even amount to research misconduct. Conflict of interest may affect the reporting of adverse events during clinical trials.

Multiple biases may occur and affect the ultimate value of the research. The safety of the research subjects may be compromised. Misinformation entering the literature may have a negative effect on human health. If it results in a public scandal, such revelations contribute to undermining public trust in science and reduce public funding of research. Personally, the researcher may suffer suspension of the project or even termination of employment and loss of reputation.

Therefore, it is always wise for a researcher to identify and manage such conflicts. Conflict mitigation will be dealt with in a subsequent Editorial.

References
Romain PL. Conflicts of interest in research: looking out for number one means keeping the primary interest front and center. Current reviews in musculoskeletal medicine. 2015 Jun;8:122-7. https://doi.org/10.1007/s12178-015-9270-2