

Review Type/Type d'évaluation:	SO Notes /Notes de l'agent scientifique
Name of Applicant/Nom du chercheur:	Clavel, Marie-Annick
Application No./Numéro de demande:	469982
Agency/Agence:	CIHR/IRSC
Competition/Concours:	2021-09-15 Project Grant/Subvention Projet
Committee/Comité:	Commercialization/Commercialisation
Title/Titre:	Artificial Intelligence algorithm for automatic detection of bioprosthesis valve calcification

Assessment/Évaluation:
Strengths:

- Convincing case for the medical importance of earlier detection of calcification, and this would be an impressive achievement. The committee likes that the proposal aims to identify patients at risk rather than just a score.
- PI is established in this area and has access to large number of patient records. Team has relevant experience. Applicant has strong credentials and a strong research and clinical background in the area.
- Applicant has developed quantified tools for detecting calcification in natural valves.
- Potential to have strong impact on patient outcomes quickly and to improve patient care.
- Statistical power of study is carefully determined.

Weaknesses:

- The commercialization plan is insufficient. It is not detailed. The open source model is not set forth sufficiently. A more fulsome commercialization plan is needed. The committee would like to see more discussion of the plan including the regulatory pathway, path to market, and the like. It is noted that just putting the technology up on GitHub is not sufficient- who will manage the technology, fix bugs, etc.?
- Applicants should seek advice and guidance on IP protection.
- The decision to make the predictions based only on calcium score is not well-justified – why train the algorithm to predict the calcium score instead of predicting the outcome directly?
- Application would be strengthened by KOL feedback. It's not clear to the committee that there's a need or desire for this technology.
- There are significant challenges to the technology. The problem is very complicated. The technology may not be successful. The committee appreciates the mitigation strategies described in the proposal but nevertheless success was a concern.
- There's no discussion of regulatory considerations in the proposal. The committee discussed whether regulatory considerations would be important as well as questions of liability. These questions were not addressed in the application.

Sex&Gender: Both sex and gender were addressed very well and well-integrated into the application.

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Assessment/Évaluation:

Budget: No comments.

Note: The final rating of the application, provided in the Notice of Recommendation (NOR) and Notice of decision (NOD), is the averaged rating of the peer review committee members following the discussion of the application during the committee meeting, and therefore may differ from the ratings provided by the assigned reviewers in their respective reviews.

Remarque : La cote définitive de la demande, qui apparaît dans l'avis de recommandation et l'avis de décision, représente la moyenne des cotes accordées par les membres du comité d'évaluation par les pairs après avoir débattu de la demande à la réunion du comité. Elle peut donc différer de celle donnée par les évaluateurs dans leur évaluation respective.