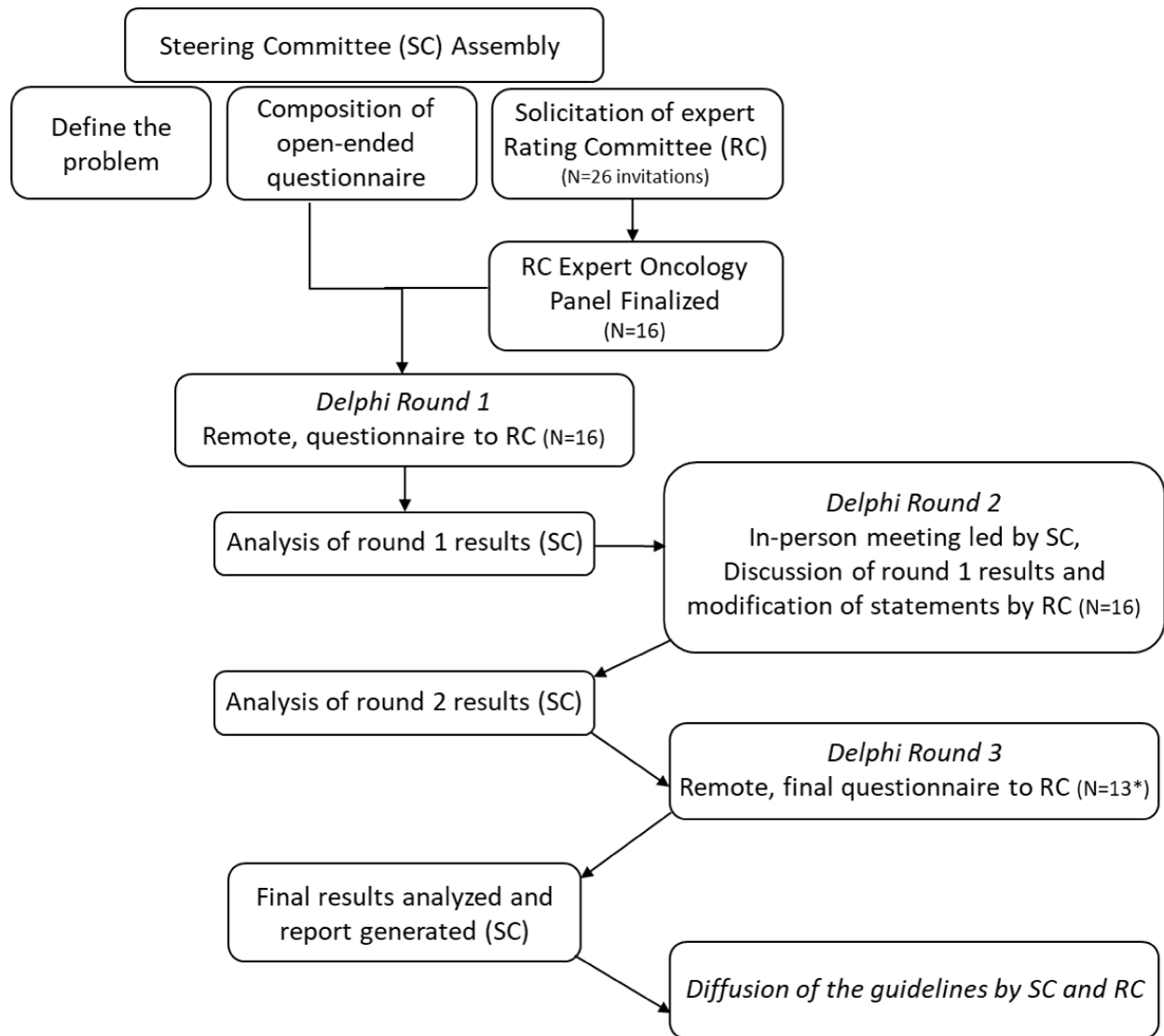


Towards Defining Immune Exclusion: Results of a Modified Delphi Workshop

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Supplemental Material

Supplemental Figure S1. Formal Consensus Delphi Method Study Design

*Three members of the RC recused themselves from voting for the Delphi Round 3 due to conflict of interest.

Abbreviations: RC, rating committee; SC, steering committee

Supplemental Table S1. Demographic characteristics of panelists in the modified Delphi study

	Steering Committee N=3	Rating Committee N=16
Gender, N (%)		
Male	3 (100)	11 (69)
Female	0 (0)	5 (31)
Country of Employment, N (%)		
Australia	0 (0)	1 (6)
France	1 (33)	4 (25)
Italy	0 (0)	1 (6)
United States of America	2 (67)	10 (63)
Role Based on Reported Job Titles, N (%)		
Academic Faculty Researcher	1 (33)	14 (88)
Independent Consultant	1 (33)	1 (6)
Pharmaceutical Scientist	1 (33)	1 (6)
Formal Specialty Training*		
Medical Oncology	2	7
Surgical Oncology Surgery	1	2
Biomechanical Engineering	0	1
Pathology	0	2
Cancer Biology/Immunology	1	8
Experience in Clinical Science, years (mean±SD)	33.6±17.0	27.7±11.3

*Fellowship training or doctoral degree; multiple authors have more than one degree

Supplemental Table S2. Round-1 open-ended survey questionnaire

1. How do you define “immune exclusion (IE)”?
2. What features are essential to this definition?
3. What features are suggestive or supportive of this definition?
4. Should the definition of IE vary for each histologic type of cancer?
5. Why or why not? (Please justify or give examples to support your position)
6. What immune cells are most important in immune exclusion?
7. Which are essential?
8. Which are suggestive or play a supportive role?
9. On a scale of 1-5 (with 1 being most important and 5 being least important), what role does immune exclusion play in primary resistance to CTLA-4/PD-(L)1 therapy (ie, lack of initial clinical response)?
10. On a scale of 1-5 (with 1 being most important and 5 being least important), what role does immune exclusion play in secondary resistance to CTLA-4/PD-(L)1 therapy (ie, loss of initial clinical response)?
11. List the top five mechanisms behind immune exclusion in order of importance.
12. List the top five research priorities to addressing immune exclusions in order of priority.
13. List the top five targets of interest to address immune exclusion for the benefit of patients in order of importance.
14. Are there any other issues related to immune exclusion that should be discussed in order to achieve consensus as part of this symposium?

Supplemental Table S3: Top research priorities to addressing immune exclusions

Research Topics	# of times a panelist mentioned the topic
Biomarkers of immune exclusion	4
Understanding MOA of IE	4
Understand the role of CAFs	3
Tumor intrinsic pathways that drive IE	3
Spatial profiling to study T cell-cancer cell interactions	2
Understanding the physical barrier and how to disrupt	2
Identify novel checkpoints	2
Define the clinical significance	2
Clear definition	2
non-invasive ways to identify immune exclusion	1
Understanding the degree of immune heterogeneity	1
Mechanisms that drive fibroinflammatory response	1
Chemoattraction	1
Understanding metabolic mechanisms	1
Understanding role of hypoxia	1
Inducing immunogenic cell death	1
Studying TLS	1
Define specificity of antibody around the tumor bed	1
Blocking immunosuppressive cell migration/function	1
Define the role of T-regulatory cells	1
Develop models of the phenomenon	1
Mechanisms of tumor induced immune cell death	1