## **Supplementary Materials**

### S1. Key terms used in literature search:

### PubMed

- ((((miR-155[Title/Abstract]) OR miRNA-155[Title/Abstract]) OR microRNA-155[Title/Abstract]) AND circulating[Title/Abstract]) AND breast cancer[Title/Abstract]
- ((((miR-155[Title/Abstract]) OR miRNA-155[Title/Abstract]) OR microRNA-155[Title/Abstract]) AND serum[Title/Abstract]) AND breast cancer[Title/Abstract]
- ((((miR-155[Title/Abstract]) OR miRNA-155[Title/Abstract]) OR microRNA-155[Title/Abstract]) AND plasma[Title/Abstract]) AND breast cancer[Title/Abstract]
- ((((miR-155[Title/Abstract]) OR miRNA-155[Title/Abstract]) OR microRNA-155[Title/Abstract]) AND tissue[Title/Abstract]) AND breast cancer[Title/Abstract]
- ((((miR-155[Title/Abstract]) OR miRNA-155[Title/Abstract]) OR microRNA-155[Title/Abstract]) AND breast cancer[Title/Abstract]) AND prognosis[Title/Abstract]

#### EMBASE

('miR 155':ab,ti OR 'microRNA 155':ab,ti OR 'miRNA 155':ab,ti OR miR155:ab,ti) AND circulating:ab,ti AND 'breast cancer':ab,ti

('miR 155':ab,ti OR 'microRNA 155':ab,ti OR 'miRNA 155':ab,ti OR miR155:ab,ti) AND serum:ab,ti AND 'breast cancer':ab,ti

('miR 155':ab,ti OR 'microRNA 155':ab,ti OR 'miRNA 155':ab,ti OR miR155:ab,ti) AND plasma:ab,ti AND 'breast cancer':ab,ti

('miR 155':ab,ti OR 'microRNA 155':ab,ti OR 'miRNA 155':ab,ti OR miR155:ab,ti) AND tissue:ab,ti AND 'breast cancer':ab,ti

# S2. PRISMA Checklist

Section/topic	#	Checklist item	Reported on page #
TITLE	-		
Title	1	Identify the report as a systematic review, meta-analysis, or both.	1
ABSTRACT			
Structured summary	2	Provide a structured summary including, as applicable: background; objectives; data sources; study eligibility criteria, participants, and interventions; study appraisal and synthesis methods; results; limitations; conclusions and implications of key findings; systematic review registration number.	1
INTRODUCTIO	ON		
Rationale	3	Describe the rationale for the review in the context of what is already known.	1–2
Objectives	4	Provide an explicit statement of questions being addressed with reference to participants, interventions, comparisons, outcomes, and study design (PICOS).	1–2
METHODS			
Protocol and registration	5	Indicate if a review protocol exists, if and where it can be accessed (e.g., Web address), and, if available, provide registration information including registration number.	10
Eligibility criteria	6	Specify study characteristics (e.g., PICOS, length of follow-up) and report characteristics (e.g., years considered, language, publication status) used as criteria for eligibility, giving rationale.	10
Information sources	7	Describe all information sources (e.g., databases with dates of coverage, contact with study authors to identify additional studies) in the search and date last searched.	10
Search	8	Present full electronic search strategy for at least one database, including any limits used, such that it could be repeated.	10
Study selection	9	State the process for selecting studies (i.e., screening, eligibility, included in systematic review, and, if applicable, included in the meta-analysis).	10
Data collection process	10	Describe method of data extraction from reports (e.g., piloted forms, independently, in duplicate) and any processes for obtaining and confirming data from investigators.	10
Data items	11	List and define all variables for which data were sought (e.g., PICOS, funding sources) and any assumptions and simplifications made.	10
Risk of bias in individual studies	12	Describe methods used for assessing risk of bias of individual studies (including specification of whether this was done at the study or outcome level), and how this information is to be used in any data synthesis.	NA
Summarymeas ures	13	State the principal summary measures (e.g., risk ratio, difference in means).	NA

Synthesis of	14	Describe the methods of handling data and combining results of	11–11
results		studies, if done, including measures of consistency (e.g., I2) for	
		each meta-analysis.	

#	Checklist item	Reported on page #
15	Specify any assessment of risk of bias that may affect the cumulative evidence (e.g., publication bias, selective reporting within studies).	NA
16	Describe methods of additional analyses (e.g., sensitivity or subgroup analyses, meta-regression), if done, indicating which were pre-specified.	11–11
17	Give numbers of studies screened, assessed for eligibility, and included in the review, with reasons for exclusions at each stage, ideally with a flow diagram.	2–3
18	For each study, present characteristics for which data were extracted (e.g., study size, PICOS, follow-up period) and provide the citations.	2–3
19	Present data on risk of bias of each study and, if available, any outcome level assessment (see item 12).	NA
20	For all outcomes considered (benefits or harms), present, for each study: (a) simple summary data for each intervention group (b) effect estimates and confidence intervals, ideally with a forest plot.	4–8
21	Present results of each meta-analysis done, including confidence intervals and measures of consistency.	NA
22	Present results of any assessment of risk of bias across studies (see Item 15).	NA
23	Give results of additional analyses, if done (e.g., sensitivity or subgroup analyses, meta-regression [see Item 16]).	8–9
24	Summarize the main findings including the strength of evidence for each main outcome; consider their relevance to key groups (e.g., healthcare providers, users, and policy makers).	9–10
25	Discuss limitations at study and outcome level (e.g., risk of bias), and at review-level (e.g., incomplete retrieval of identified research, reporting bias).	10
26	Provide a general interpretation of the results in the context of other evidence, and implications for future research.	10
	15 16 17 17 18 19 20 21 22 23 23 24 25	Image: Content of the content of th

Funding	27	Describe sources of funding for the systematic review and	This research was
		other support (e.g., supply of data); role of funders for the	funded by Ministry
		systematic review.	of Health under
			contract "Ricerca
			Corrente RRC-2020-
			23669967" to M.I.
			and S.N., and was
			partially supported
			by Associazione
			Italiana Ricerca sul
			Cancro (AIRC) IG
			2016 N. 18473, POR
			Campania FESR
			2014-2020 "SATIN"
			to GC and Earlier
			Grant to G.C. This
			project has received
			funding from the
			European Union's
			Horizon 2020
			research and
			innovation
			programme under
			the Marie
			Skłodowska-Curie
			grant agreement:
			cONCReTE 872391;
			PRISAR2 872860;
			CAST 857894; PAVE
			861190

*From:* Moher D, Liberati A, Tetzlaff J, Altman DG, The PRISMA Group (2009). Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. PLoS Med 6(7): e1000097. doi:10.1371/journal.pmed1000097

For more information, visit:<u>www.prisma-statement.org</u>.