## Overview of GEICAM Biobank sample collections from ongoing clinical studies





Protocol	Туре	Phase	Clinical Trials.gov	Description	Indica-				BIOLOGICAL SAMPLES TYPE								
							No. Patients	FFPE Tumor+		Plasma	Serum	WB	вс	σΠΝΑ	σRNA	Other	STUDY TIME-POINT
			ID		LIOII	Subtype	Enrolled	Primary	Metas- tatic	Flasilia	Serum	VVD	БС	BDIVA	BINIVA	Other	
GEICAM/ 2014-09	Obs. (No-EPA)	NA	NCT 03860740	Effect of Exercise on Ki-67 Levels in Women With HR+/HER2- Operable Breast Cancer. (EFIK)	Neo	HR+/HER2- Ki67 ≥14%	10***	<b>√</b>			$\checkmark$						Pre-tx Post-tx FU (serum): 6m
GEICAM/ 2019-01	СТ	II	NCT 04293393	Phase II, randomized, open-label, international, multicenter study to compare efficacy of standard chemotherapy vs. letrozole plus abemaciclib as neoadjuvant therapy in HR-positive/HER2-negative high/intermediate risk breast cancer patients	Neo	HR+/HER2- Ki67 >20%	135***	<b>√</b>		<b>√</b>		<b>√</b>				<b>√</b>	Pre-tx Post-tx (tumor: 2w; at surgery) (plasma, WB: 2w; 12w; 6m; 12m; 4w post-surgery; at disease progression) FU (plasma, WB): every 6m for 5y and every 12m for the following 5y Other samples: fresh tumor (pre- and post-tx for PDX and organoid-based model generation)
GEICAM/ 2011-03	СТ	111	NCT 01272037	A Phase III, Randomized Clinical Trial of Standard Adjuvant Endocrine Therapy +/- Chemotherapy in Patients With 1-3 Positive Nodes, Hormone Receptor-Positive and HER2-Negative Breast Cancer With Recurrence Score (RS) of 25 or Less. RxPONDER: A Clinical Trial Rx for Positive Node, Endocrine Responsive Breast Cancer	Adj	HR+/HER2- N+	792	<b>√</b>		<b>√</b>	<b>√</b>		<b>√</b>			<b>√</b>	Pre-tx Other samples: affected and non-affected lymph nodes samples
GEICAM/ 2009-03	No-EPA	NA	NCT 01377363	Evaluation of Degree of Conversion of HER2 Receptor Between Primary Breast Cancer and Metastasis	Adj / Met	All subtypes	184	<b>√</b>	<b>√</b>								At study entry
GEICAM/ 2013-02	СТ	111	NCT 02028507	Phase III study of Palbociclib (PD-0332991) in combination with Endocrine therapy (exemestane or fulvestrant) versus chemotherapy (capecitabine) in Hormonal Receptor (HR) positive/HER2 negative Metastatic Breast Cancer (MBC) patients with Resistance to non-steroidal Aromatase inhibitors	, Met	ER+/HER2-	601	<b>√</b>	<b>√</b>	<b>√</b>		<b>√</b>					Pre-tx Post-tx (plasma): C1D1; C1D15; C2D15; EOT; at disease progression
GEICAM/ 2014-12	СТ	11	NCT 02690480	A randomized, double-blind, parallel-group, multicentre, phase II study to compare the efficacy and tolerability of fulvestrant (FaslodexTM) 500mg with placebo and fulvestrant (FaslodexTM) 500mg in combination with PD-0332991 (Palbociclib) as first line treatment for postmenopausal women with hormone receptor-positive metastatic breast cancer, who have completed at least 5 years of adjuvant endocrine therapy and remained disease free for more than 12 months following its completion or have "de novo" metastatic disease.	Met	ER+/HER2-	189	<b>✓</b>	<b>√</b>	<b>✓</b>		<b>√</b>					Pre-tx Post-tx FU (plasma): 12w; 24w; 36w; 48w; at disease progression
GEICAM/ 2018-03	Obs. (NO-EPA)	NA	NCT 04370522	The NIKOLE study: Characterization of innate immune system in patients with luminal advanced breast cancer	Met	HR+/HER2-	13***	<b>√</b>	<b>√</b>	<b>√</b>		<b>√</b>				<b>√</b>	Pre-tx Post-tx (plasma, PBMCs): 6w; 3m; EOT/at disease progression; at disease progression after EOT Other samples: peripheral blood mononuclear cells (PBMCs)
GEICAM/ 2017-01	СТ	III	NCT 05063786	A randomized phase III trial of trastuzumab + ALpelisib +/- fulvestrant versus trastuzumab + chemotherapy in patients with PIK3CA mutated previously treated HER2+ Advanced BrEasT cancer. "ALPHABET Study"	Met	HER2+ (HR +/-) PIK3CA mutated	2***	<b>√</b>	<b>√</b>	<b>✓</b>		<b>√</b>					Pre-tx Post-tx (plasma, WB): 9w; EOT/at disease progression; at disease progression after EOT
GEICAM/ 2017-04	Obs. NO-EPA	NA	NCT 03829306	Unraveling KAdcyla (Trastuzumab emtansine; T-DM1) resistance In HER2-positive Advanced breast cancer (ABC): a prospective GEICAM study	Met	HER2+	32	<b>√</b>	<b>√</b>	<b>√</b>						<b>√</b>	Pre-tx Post-tx (tumor: 5d post-tx and at progression (plasma: C2; C4; every 3 cycles until C16; EOT at disease progression) Other samples: pre- and post-tx tumor after ex-vivo culture with Kadcyla
GEICAM/ 2015-04	СТ	II	NCT 03025880	A Multicenter Phase II Trial to Evaluate the Efficacy and Safety of Pembrolizumab and Gemcitabine in Patients With HER2-negative Advanced Breast Cancer (ABC)	Met	HER2- (Luminal A & B / TN)	36		<b>√</b>		<b>√</b>				<b>✓</b>		Pre-tx Post-tx:C3; C6 (serum, gRNA); at disease progression
GEICAM/ 2015-06	СТ	II	NCT 03205761	A Phase II Clinical Trial to Analyse Olaparib Response in Patients With BRCA1 and/or 2 Promoter Methylation Diagnosed of Advanced Breast Cancer (COMETA-Breast Study)	Met	TN	11	**	**	* 🗸		<b>√</b>			<b>√</b>		Pre-tx Post-tx: (tumor: at disease progression) (plasma, WB, gRNA: 4-6w; EOT/at disease progression; at disease progression after EOT
GEICAM/ 2014-03	Registry Obs. (NO-EPA)	NA	NCT 02819882	A Prospective Registry Study in Patients With Unresectable Locally Advanced or Metastatic Breast Cancer (MBC)	Met	All subtypes	1900***	<b>√</b>	<b>√</b>	<b>√</b>	<b>✓</b>			<b>✓</b>			At registration At disease progression (tumor, plasma, serum)
GEICAM/ 2012-03	Obs. (NO-EPA)	NA	Not registered	Molecular characterization of Gestational Breast Cancer	All	All subtypes	73	**	***	*							At study entry
EPIGEICAM	Obs. (NO-EPA)	NA	Not registered	Lifestyle and Breast Cancer Risk in Spain	All	All subtypes	2374			<b>√</b>	<b>✓</b>		<b>√</b>	<b>√</b>		<b>✓</b>	At study entry (samples from breast cancer patients and healthy women) Other samples: saliva
Health- epiGEICAM	Obs. (NO-EPA)	NA	NCT 04379908	Healthy lifestyles and quality of life in women with breast cancer	All	All subtypes	1257	<b>√</b>	<b>√</b>								At study entry
GEICAM/ 2016-04	Registry Obs. (NO-EPA)	NA	NCT 03800355	An observational, retrospective study on the progress of breast cancer cases in males and the assessment of relapse risk through gene sequencing	All	All subtypes	541***	<b>✓</b>	<b>√</b>			<b>√</b>					At study entry At disease progression
GEICAM/ 2017-07	Registry Obs. (NO-EPA)	NA	NCT 04603820	An ambispective observational registry study of pregnancy and breast cancer. EMBARCAM Study.	All	All subtypes	185***	<b>√</b>	$\checkmark$	$\checkmark$		$\checkmark$					At study entry

\*FFPE blocks / slides; \*\*Tumoral DNA and/or tumoral RNA; \*\*\*On recruitment

CT: clinical trial; Obs.: observational study; No-EPA: non drug post-authorization study.

NA: not apply.

Neo: neoadjuvant; Adj: adjuvant; Met: metastatic

HER2: human epidermal growth factor receptor 2; HR: hormone receptor; ER: estrogen receptor; N: lymph node; TN: triple-negative.

WB: whole blood; BC: buffy coat; gDNA: germinal DNA; gRNA: germinal RNA.

Pre-tx: pre-treatment; Post-tx: post-treatment; FU: follow-up; w: week; m: month; y: year; C: cycle; D: day; EOT: end of treatment.