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# INTRODUCTION

Hematopoietic stem cell transplantation (HSCT)



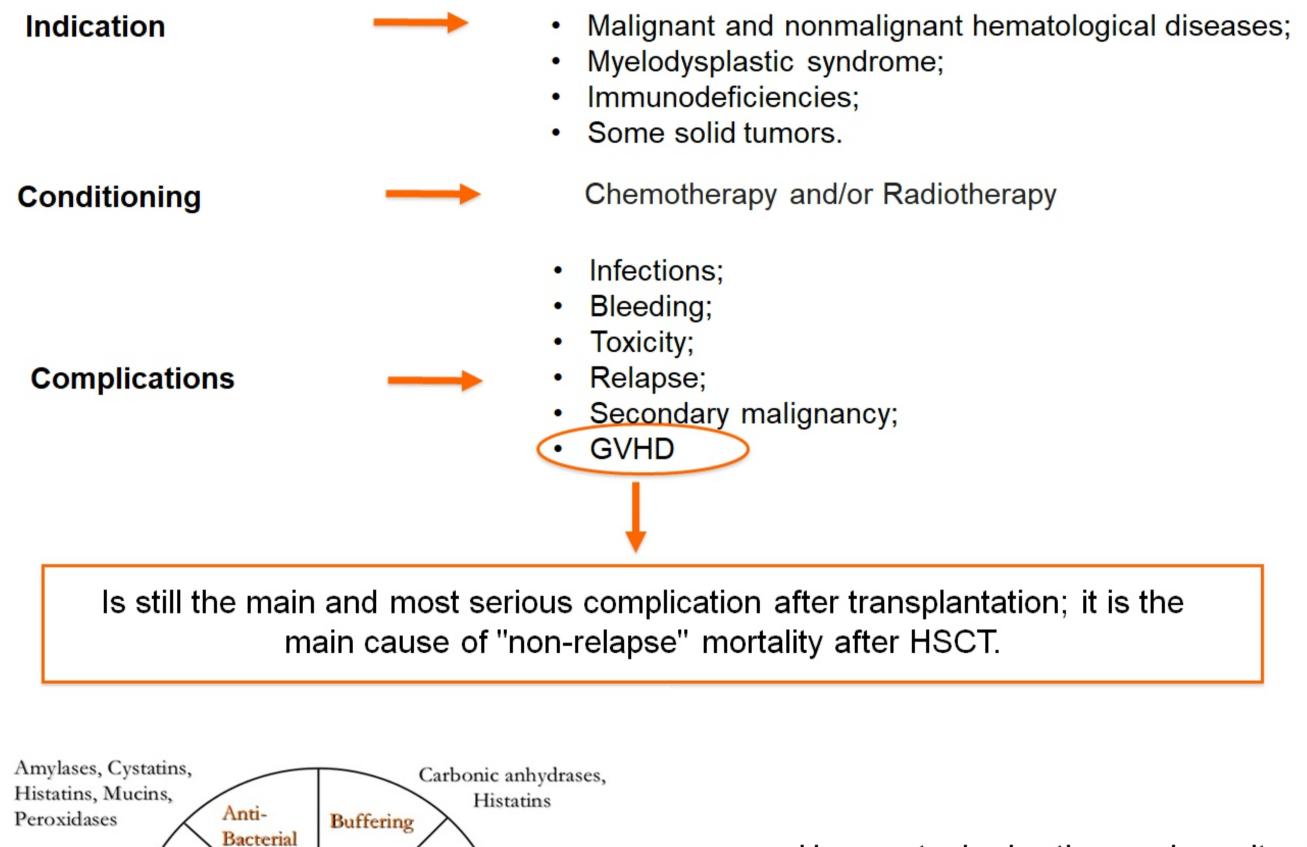


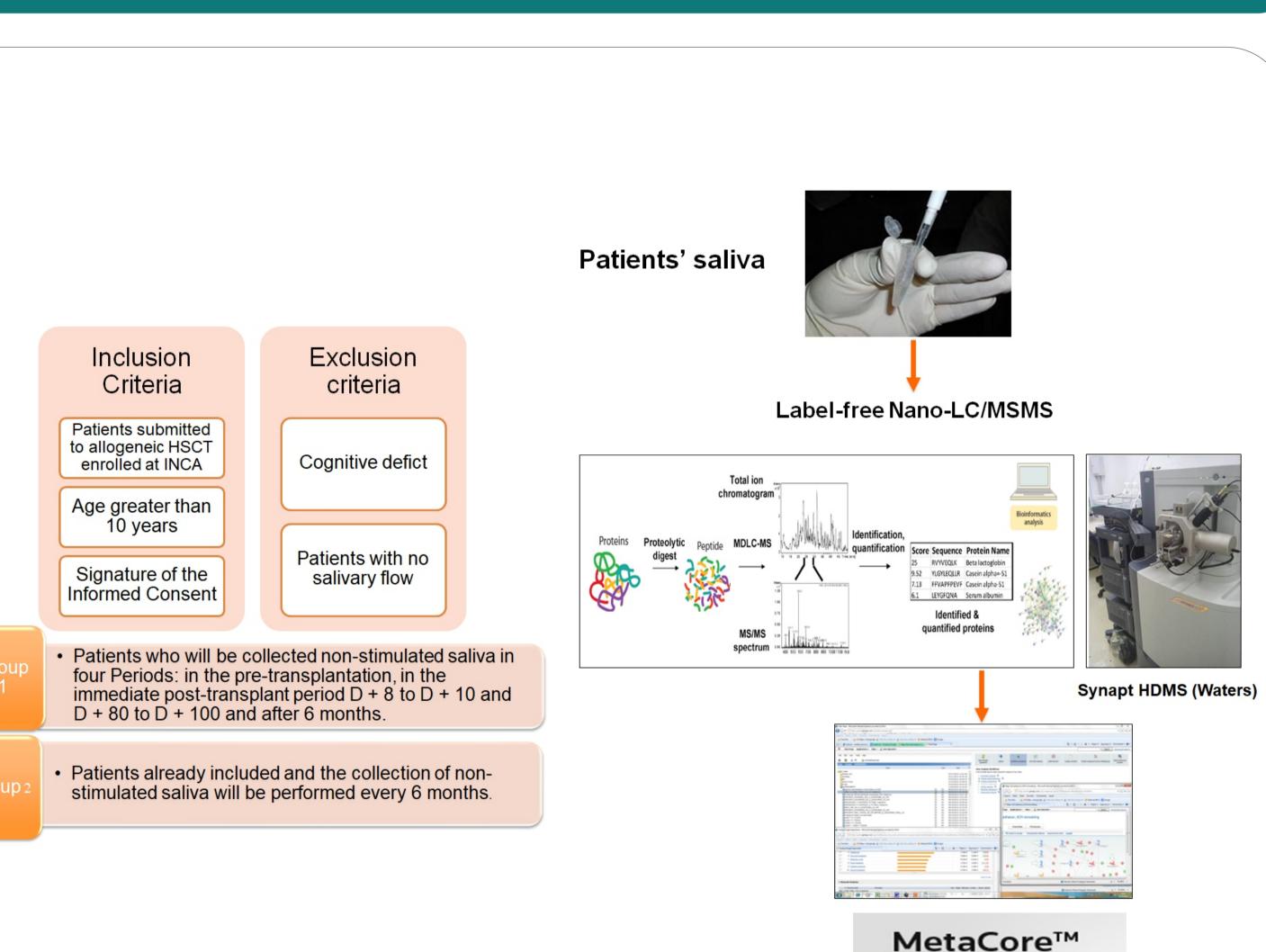


## OBJECTIVES

Identify proteins that can predict the risk of developing GVHD by evaluate the salivary protein expression of pre-allogenic HSCT patients when comparing patients that developed or not GVHD posteriorly.

## METHODOLOGY

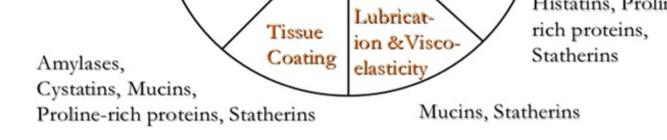




Salivary Families Mineralization Kystatins, Proline-Mucins, Lipase Mucins, Lipase Mineralistation Kystatins, Proline-Mucins, Lipase Mucins, Lipase Mucins, Lipase Mucins, Lipase Mucins, Lipase Mucins, Lipase Mineralization

Amylases,

Homeostasis in the oral cavity is maintained by a complex network of innate and adaptive immune proteins and normal oral flora.



Cystatins,

Histatins

Mucins

Anti-

Viral

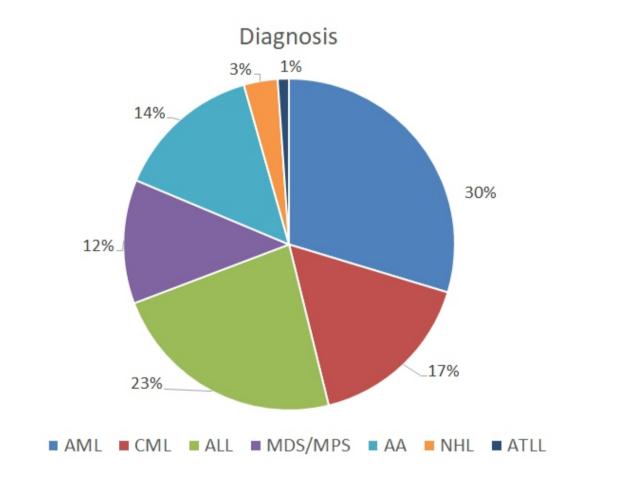
Anti-

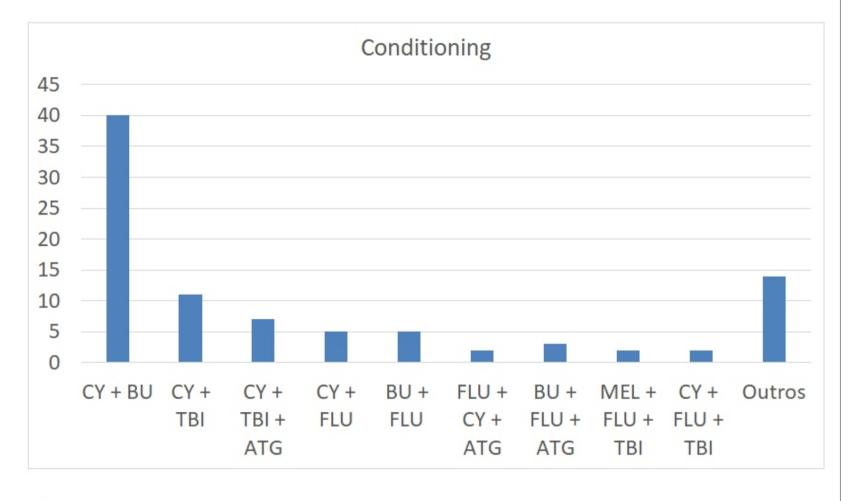
Fungal

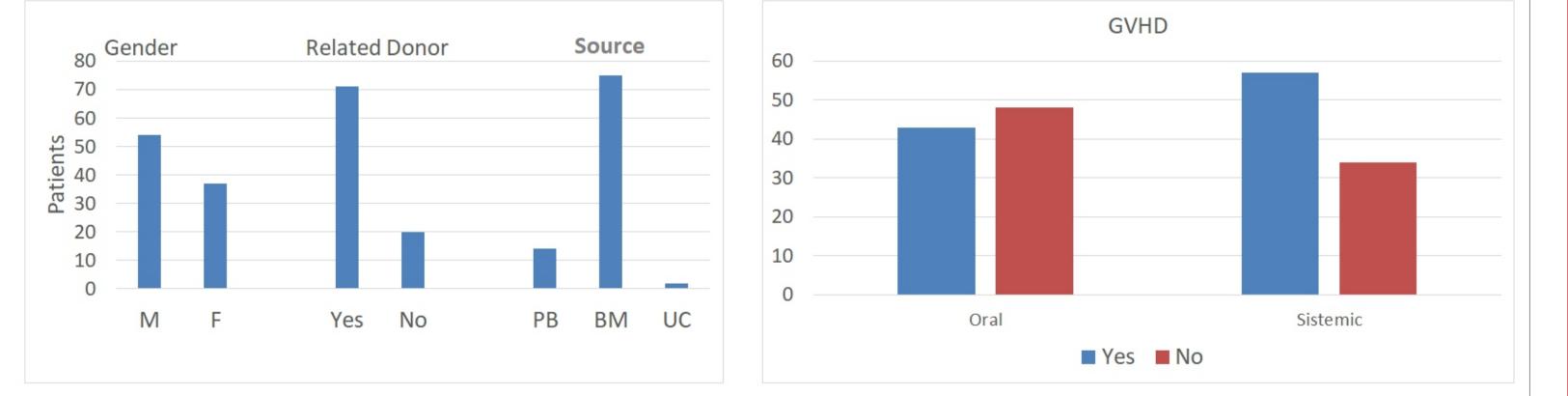
### PARTIAL RESULTS

Patients   Gender   Age   Conditioning   Transplant (DD/MM/AAAA)   Related Donor   Source   Diagnoses   Sistemic GVHD   Oral GVHD     1001086   M   16   CY + TBI   22/09/2017   Yes   BM   ALL   Yes   No     1001087   M   26   CY + FU + ATG   22/09/2017   Yes   BM   ALL   Yes   No     1001088   M   29   FU + TBI   28/09/2017   Yes   BM   AML   Yes   Yes     1001089   M   26   CY + BU   05/10/2017   Yes   BM   AML   Yes   Yes     1001091   F   50   BU + FLU   11/10/2017   Yes   BM   AML   Yes   Yes     1001091   F   58   BU + FLU   11/1/2017   No   BM   AAML   No   No     1001093   M   20   FLU + TBI   23/11/2017   No   BM   AML   No   No     1001098   M	/	GROUP 1										
1001097   M   26   CY + FLU + ATG   22/09/2017   No   PB   AML   Yes   No     1001088   M   29   FLU + TBI   28/09/2017   Yes   BM   ALL   Yes   Yes     1001089   M   26   CY + BU   05/07/2017   Yes   BM   AML   Yes   Yes     1001090   F   39   CY + BU   05/07/2017   Yes   BM   AML   Yes   Yes     1001091   F   50   BU + FLU   11/10/2017   Yes   BM   AML   No   No     1001092   F   58   BU + CY   10/11/2017   No   BM   AML   No   No     1001093   M   20   FLU + TBI   20/10/2017   No   BM   AML   Yes   No     1001097   F   13   BU + CY + ATG   09/11/2017   No   BM   ALL   No   No     1001099   F   60   BU + FLU   30/11/2		Patients	Gender	Age	Conditioning	•		Source	Diagnoses		Oral GVHD	
1001088   M   29   FLU + TBI   28/09/2017   Yes   BM   ALL   Yes   Yes     1001089   M   26   CY + BU   05/07/2017   Yes   BM   AML   Yes   Yes     1001090   F   39   CY + BU   05/10/2017   Yes   BM   AML   Yes   Yes     1001091   F   30   CY + BU   05/10/2017   Yes   BM   AML   Yes   Yes     1001092   F   58   BU + FLU   ATT   No   BM   AML   No   No     1001093   M   20   FLU + TBI   20/10/2017   No   BM   AML   No   No     1001093   M   20   FLU + TBI   20/11/2017   No   BM   AML   No   No     1001097   F   13   BU + CY   10/11/2017   No   BM   ALL   No   No     1001109   F   60   BU + FLU   30/11/2017   <		1001086	M	16	CY + TBI	22/09/2017	Yes	BM	ALL	Yes	No	
1001089   M   26   CY+BU   05/07/2017   Yes   BM   AML   Yes   Yes     1001090   F   39   CY+BU   05/10/2017   Yes   BM   AML   Yes   No     1001091   F   50   BU+FLU   11/10/2017   Yes   BM   AML   Yes   Yes     1001092   F   58   BU+FLU+ATG   11/10/2017   No   BM   AML   No   No     1001093   M   20   FLU+TBI   20/10/2017   No   BM   AML   No   No     1001096   F   49   BU+CY   10/11/2017   Yes   BM   AML   No   No     1001097   F   13   BU+CY +ATG   09/11/2017   No   BM   AML   No   No     1001099   F   60   BU+FLU   30/11/2017   Yes   BM   AALL   No   No     1001102   M   15   CY+EU   12/12/2017   Yes		1001087	M	26	CY + FLU + ATG	22/09/2017	No	PB	AML	Yes	No	
1001090   F   39   CY + BU   05/10/2017   Yes   BM   AML   Yes   No     1001091   F   50   BU + FLU   11/10/2017   Yes   BM   AML   Yes   Yes     1001092   F   58   BU + FLU   11/10/2017   No   BM   AML   No   No     1001093   M   20   FLU + TBI   20/10/2017   No   BM   AML   No   No     1001093   M   20   FLU + TBI   20/10/2017   No   BM   AML   No   No     1001097   F   13   BU + CY   10/11/2017   No   BM   AML   No   No     1001098   M   14   CY + FLU + TBI   23/11/2017   No   BM   ALL   No   No     1001102   M   15   CY + BU   06/12/2017   No   BM   ALL   Yes   Yes     1001103   F   56   BU + FLU   06/12/2017		1001088	M	29	FLU + TBI	28/09/2017	Yes	BM	ALL	Yes	Yes	
1001091   F   50   BU + FLU   11/10/2017   Yes   BM   AML   Yes   Yes     1001092   F   58   BU + FLU + ATG   11/10/2017   No   BM   AML   No   No     1001093   M   20   FLU + TBI   20/10/2017   No   BM   AAA   No   No     1001096   F   49   BU + CY   10/11/2017   Yes   BM   AML   No   No     1001097   F   13   BU + CY + ATG   09/11/2017   No   BM   ALL   No   No     1001098   M   14   CY + FLU   TBI   23/11/2017   No   BM   ALL   No   No     100109   F   60   BU + FLU   30/11/2017   Yes   BM   SAA/MDS   No   No     1001102   M   15   CY + FLU   TBI + PTCY   12/12/2017   Yes   BM   AML   Yes   Yes     1001103   F   56 </td <td></td> <td>1001089</td> <td>M</td> <td>26</td> <td>CY + BU</td> <td>05/07/2017</td> <td>Yes</td> <td>BM</td> <td>AML</td> <td>Yes</td> <td>Yes</td>		1001089	M	26	CY + BU	05/07/2017	Yes	BM	AML	Yes	Yes	
1001092   F   58   BU + FLU + ATG   11/10/2017   No   BM   AML   No   No     1001093   M   20   FLU + TBI   20/10/2017   No   BM   AA   No   No     1001096   F   49   BU + CY   10/11/2017   Yes   BM   AML   No   No     1001097   F   13   BU + CY + ATG   09/11/2017   No   BM   AML   No   No     1001098   M   14   CY + FLU   TBI   23/11/2017   No   BM   SAA/MDS   No   No     1001098   M   44   CY + FLU   TBI + PTCY   12/12/2017   Yes   BM   SAA/MDS   No   No     1001102   M   15   CY + BU   06/12/2017   Yes   BM   AALL   Yes   Yes     1001103   F   56   BU + FLU   06/12/2017   No   BM   ALL   Yes   No     1001107   F   27		1001090	F	39	CY + BU	05/10/2017	Yes	BM	AML	Yes	No	
1001033   M   20   FLU + TBI   20/10/2017   No   BM   AA   No   No     1001096   F   49   BU + CY   10/11/2017   Yes   BM   AML   No   No     1001097   F   13   BU + CY + ATG   09/11/2017   No   BM   AML   Yes   No     1001098   M   14   CY + FLU + TBI   23/11/2017   No   BM   AALL   No   No     1001099   F   60   BU + FLU   30/11/2017   Yes   BM   SAA/MDS   No   No     1001100   M   45   CY + FLU + TBI + PTCY   12/12/2017   Yes   PB   AA   No   No     1001102   M   15   CY + BU   06/12/2017   No   BM   ALL   Yes   Yes     1001107   F   27   FLU+ CY + TBI + PTCY   20/12/2017   No   BM   ALL   Yes   No     1001107   F   27   FLU+ CY +		1001091	F	50	BU + FLU	11/10/2017	Yes	BM	AML	Yes	Yes	
1001096   F   49   BU + CY   10/11/2017   Yes   BM   AML   No   No     1001097   F   13   BU + CY + ATG   09/11/2017   No   BM   AML   Yes   No     1001098   M   14   CY + FLU + TBI   23/11/2017   No   BM   ALL   No   No     1001099   F   60   BU + FLU   30/11/2017   Yes   BM   SAA/MDS   No   No     1001100   M   45   CY + FLU + TBI + PTCY   12/12/2017   Yes   BM   SAA/MDS   No   No     1001102   M   15   CY + BU   06/12/2017   No   BM   ALL   Yes   Yes     1001103   F   56   BU + FLU   06/12/2017   Yes   BM   SAA   No   No     1001109   F   60   CY + ATB + TBI   20/12/2017   No   BM   ALL   Yes   No     1001110   M   36   CY + ATG +		1001092	F	58	BU + FLU + ATG	11/10/2017	No	BM	AML	No	No	
1001097   F   13   BU + CY + ATG   09/11/2017   No   BM   AML   Yes   No     1001097   F   13   BU + CY + ATG   09/11/2017   No   BM   AML   No   No     1001098   M   14   CY + FLU + TBI   23/11/2017   Yes   BM   SAA/MDS   No   No     1001099   F   60   BU + FLU   30/11/2017   Yes   BM   SAA/MDS   No   No     1001100   M   45   CY + FLU + TBI + PTCY   12/12/2017   Yes   PB   AA   No   No     1001102   M   15   CY + BU   06/12/2017   No   BM   AHL   Yes   Yes     1001103   F   56   BU + FLU   06/12/2017   Yes   BM   AALL   No   No     1001107   F   27   FLU+ CY + TBI + PTCY   20/12/2017   No   BM   ALL   No   No     1001110   M   36		1001093	M	20	FLU + TBI	20/10/2017	No	BM	AA	No	No	
1001098   M   14   CY + FLU + TBI   23/11/2017   No   BM   ALL   No   No     1001099   F   60   BU + FLU   30/11/2017   Yes   BM   SAA/MDS   No   No     100109   F   60   BU + FLU   30/11/2017   Yes   BM   SAA/MDS   No   No     1001100   M   45   CY + FLU + TBI + PTCY   12/12/2017   Yes   PB   AA   No   No     1001102   M   15   CY + BU   06/12/2017   Yes   BM   AMLL   Yes   Yes     1001107   F   27   FLU+ CY + TBI + PTCY   20/12/2017   Yes   BM   AALL   No   No     1001109   F   60   CY + ATG + TBI   20/12/2017   No   BM   ALL   Yes   No     1001101   M   36   CY + ATG + TBI   20/12/2017   No   BM   ALL   Yes   No     1001110   M   36		1001096	F	49	BU + CY	10/11/2017	Yes	BM	AML	No	No	
1001099   F   60   BU + FLU   30/11/2017   Yes   BM   SAA/MDS   No   No     1001100   M   45   CY + FLU + TBI + PTCY   12/12/2017   Yes   PB   AA   No   No     1001102   M   15   CY + BU   06/12/2017   No   BM   ALL   Yes   Yes     1001103   F   56   BU + FLU   06/12/2017   Yes   BM   AML   No   No     1001107   F   27   FLU+ CY + TBI + PTCY   20/12/2017   Yes   BM   SAA   No   No     1001109   F   60   CY + ATB + TBI   20/12/2017   No   BM   ALL   Yes   No     1001109   F   60   CY + ATG + TBI   24/01/2018   No   PB   ALL   No   No     1001111   F   50   CY + BU   26/01/2018   Yes   BM   ALL   Yes   No     1001112   M   11   FLU + TB		1001097	F	13	BU + CY + ATG	09/11/2017	No	BM	AML	Yes	No	
1001100 M 45 CY +FLU + TBI + PTCY 12/12/2017 Yes PB AA No No   1001102 M 15 CY + BU 06/12/2017 No BM ALL Yes Yes   1001103 F 56 BU + FLU 06/12/2017 Yes BM AML No No   1001107 F 27 FLU+ CY +TBI + PTCY 20/12/2017 Yes BM SAA No No   1001109 F 60 CY + ATG + TBI 20/12/2017 No BM ALL Yes No   1001109 F 60 CY + ATG + TBI 20/12/2017 No BM ALL Yes No   1001110 M 36 CY + ATG + TBI 24/01/2018 No PB ALL No No   1001111 F 50 CY + BU 26/01/2018 Yes BM ALL Yes No   1001112 M 11 FLU + TBI 08/02/2018 Yes BM ALL Yes No   100		1001098	M	14	CY + FLU + TBI	23/11/2017	No	BM	ALL	No	No	
1001102 M 15 CY + BU 06/12/2017 No BM ALL Yes Yes   1001103 F 56 BU + FLU 06/12/2017 Yes BM AML No No   1001107 F 27 FLU+ CY +TBI + PTCY 20/12/2017 Yes BM SAA No No   1001109 F 60 CY +ATB + TBI 20/12/2017 No BM ALL Yes No   1001109 F 60 CY +ATG + TBI 20/12/2017 No BM ALL Yes No   1001110 M 36 CY + ATG + TBI 24/01/2018 No PB ALL No No   1001111 F 50 CY + BU 26/01/2018 Yes BM ALL Yes No   1001112 M 11 FLU + TBI 08/02/2018 Yes BM ALL Yes No   1001113 F 67 BU + FLU 07/03/2018 Yes BM ALL Yes No   1001115		1001099	F	60	BU + FLU	30/11/2017	Yes	BM	SAA/MDS	No	No	
International base   Interna		1001100	M	45	CY +FLU + TBI + PTCY	12/12/2017	Yes	PB	AA	No	No	
1001107   F   27   FLU+ CY +TBI + PTCY   20/12/2017   Yes   BM   SAA   No   No     1001109   F   60   CY +ATB + TBI   20/12/2017   No   BM   ALL   Yes   No     1001109   F   60   CY +ATG + TBI   20/12/2017   No   BM   ALL   Yes   No     1001110   M   36   CY + ATG + TBI   24/01/2018   No   PB   ALL   No   No     1001111   F   50   CY + BU   26/01/2018   Yes   BM   ALL   Yes   No     1001112   M   11   FLU + TBI   08/02/2018   Yes   BM   ALL   Yes   No     1001113   F   67   BU + FLU   07/03/2018   Yes   BM   ALL   Yes   No     1001115   M   30   CY + TBI   15/03/2018   Yes   BM   ALL   -   -     1001116   M   44   FLU + CY + ATG		1001102	M	15	CY + BU	06/12/2017	No	BM	ALL	Yes	Yes	
1001109 F 60 CY +ATB + TBI 20/12/2017 No BM ALL Yes No   1001110 M 36 CY + ATG + TBI 24/01/2018 No PB ALL No No   1001111 F 50 CY + BU 26/01/2018 Yes BM ALL Yes No   1001112 M 11 FLU + TBI 08/02/2018 Yes BM ALL Yes No   1001113 F 67 BU + FLU 07/03/2018 Yes BM MLL Yes No   1001114 M 43 FLU + TBI + PTCY 08/03/2018 Yes BM ALL Yes No   1001115 M 30 CY + TBI 15/03/2018 Yes BM ALL - -   1001116 M 44 FLU + CY + ATG 22/03/2018 No PB NLH - -   1001117 M 40 BU + FLU + CY 28/03/2018 No BM ALL Yes No   1001118		1001103	F	56	BU + FLU	06/12/2017	Yes	BM	AML	No	No	
1001110 M 36 CY + ATG + TBI 24/01/2018 No PB ALL No No   1001111 F 50 CY + BU 26/01/2018 Yes BM ALL Yes No   1001111 F 50 CY + BU 26/01/2018 Yes BM ALL Yes No   1001112 M 11 FLU + TBI 08/02/2018 Yes BM ALL Yes No   1001113 F 67 BU + FLU 07/03/2018 Yes BM Mielofibrosis Yes No   1001114 M 43 FLU + TBI + PTCY 08/03/2018 Yes BM ALL Yes No   1001115 M 30 CY + TBI 15/03/2018 Yes BM ALL - -   1001116 M 44 FLU + CY + ATG 22/03/2018 No PB NLH - -   1001117 M 40 BU + FLU + CY 28/03/2018 No BM ALL Yes No   1001118 <td></td> <td>1001107</td> <td>F</td> <td>27</td> <td>FLU+ CY +TBI + PTCY</td> <td>20/12/2017</td> <td>Yes</td> <td>BM</td> <td>SAA</td> <td>No</td> <td>No</td>		1001107	F	27	FLU+ CY +TBI + PTCY	20/12/2017	Yes	BM	SAA	No	No	
1001111 F 50 CY + BU 26/01/2018 Yes BM ALL Yes No   1001112 M 11 FLU + TBI 08/02/2018 Yes BM ALL Yes No   1001112 M 11 FLU + TBI 08/02/2018 Yes BM ALL Yes No   1001113 F 67 BU + FLU 07/03/2018 Yes BM Mielofibrosis Yes No   1001114 M 43 FLU + TBI + PTCY 08/03/2018 Yes BM ALL Yes No   1001115 M 30 CY + TBI 15/03/2018 Yes BM ALL - -   1001116 M 44 FLU + CY + ATG 22/03/2018 No PB NLH - -   1001117 M 40 BU + FLU + CY 28/03/2018 Yes BM ALL - -   1001118 M 29 CY + TBI + ATG 28/03/2018 No BM ALL Yes No   1001119 <td></td> <td>1001109</td> <td>F</td> <td>60</td> <td>CY +ATB + TBI</td> <td>20/12/2017</td> <td>No</td> <td>BM</td> <td>ALL</td> <td>Yes</td> <td>No</td>		1001109	F	60	CY +ATB + TBI	20/12/2017	No	BM	ALL	Yes	No	
1001112 M 11 FLU + TBI 08/02/2018 Yes BM ALL Yes No   1001113 F 67 BU + FLU 07/03/2018 Yes BM Mielofibrosis Yes No   1001114 M 43 FLU + TBI + PTCY 08/03/2018 Yes BM ALL Yes No   1001115 M 30 CY + TBI 15/03/2018 Yes BM ALL - -   1001115 M 30 CY + TBI 15/03/2018 Yes BM ALL - -   1001116 M 44 FLU + CY + ATG 22/03/2018 No PB NLH - -   1001117 M 40 BU + FLU + CY 28/03/2018 No BM ALL - -   1001117 M 40 BU + FLU + CY 28/03/2018 No BM ALL - -   1001118 M 29 CY + TBI + ATG 28/03/2018 No BM ALL Yes No   1001119		1001110	M	36	CY + ATG + TBI	24/01/2018	No	PB	ALL	No	No	
1001112 In 12 Intervision Intervision<		1001111	F	50	CY + BU	26/01/2018	Yes	BM	ALL	Yes	No	
1001112 M 43 FLU + TBI + PTCY 08/03/2018 Yes BM ALL Yes No   1001115 M 30 CY + TBI 15/03/2018 Yes BM ALL - -   1001115 M 30 CY + TBI 15/03/2018 Yes BM ALL - -   1001116 M 44 FLU + CY + ATG 22/03/2018 No PB NLH - -   1001117 M 40 BU + FLU + CY 28/03/2018 Yes BM ALL - -   1001118 M 29 CY + TBI + ATG 28/03/2018 No BM ALL Yes No   1001118 M 29 CY + TBI + ATG 28/03/2018 No BM ALL Yes No   1001119 F 35 CY + TBI 12/04/2018 Yes BM ALL Yes Yes   1001121 M 10 CY + ATG + TBI 10/05/2018 No BM ALL - -		1001112	M	11	FLU + TBI	08/02/2018	Yes	BM	ALL	Yes	No	
1001111 M 30 CY + TBI 15/03/2018 Yes BM ALL - -   1001116 M 44 FLU + CY + ATG 22/03/2018 No PB NLH - -   1001117 M 40 BU + FLU + CY 28/03/2018 Yes BM ALL - -   1001117 M 40 BU + FLU + CY 28/03/2018 Yes BM ALL - -   1001118 M 29 CY + TBI + ATG 28/03/2018 No BM ALL Yes No   1001119 F 35 CY + TBI 12/04/2018 Yes BM CML Yes Yes   1001121 M 10 CY + ATG + TBI 10/05/2018 No BM ALL - -		1001113	F	67	BU + FLU	07/03/2018	Yes	BM	Mielofibrosis	Yes	No	
1001110 M 44 FLU + CY + ATG 22/03/2018 No PB NLH - -   1001117 M 40 BU + FLU + CY 28/03/2018 Yes BM ALL - -   1001117 M 29 CY + TBI + ATG 28/03/2018 Yes BM ALL - -   1001118 M 29 CY + TBI + ATG 28/03/2018 No BM ALL Yes No   1001119 F 35 CY + TBI 12/04/2018 Yes BM CML Yes Yes   1001121 M 10 CY + ATG + TBI 10/05/2018 No BM ALL - -		1001114	Μ	43	FLU + TBI + PTCY	08/03/2018	Yes	BM	ALL	Yes	No	
1001117 M 40 BU + FLU + CY 28/03/2018 Yes BM ALL - -   1001118 M 29 CY + TBI + ATG 28/03/2018 No BM ALL Yes No   1001119 F 35 CY + TBI 12/04/2018 Yes BM CML Yes Yes   1001121 M 10 CY + ATG + TBI 10/05/2018 No BM ALL - -		1001115	M	30	CY + TBI	15/03/2018	Yes	BM	ALL	-	-	
1001117 M 29 CY + TBI + ATG 28/03/2018 No BM ALL Yes No   1001119 F 35 CY + TBI 12/04/2018 Yes BM CML Yes Yes   1001121 M 10 CY + ATG + TBI 10/05/2018 No BM ALL - -		1001116	Μ	44	FLU + CY + ATG	22/03/2018	No	PB	NLH	-	-	
1001119 F 35 CY + TBI 12/04/2018 Yes BM CML Yes Yes   1001121 M 10 CY + ATG + TBI 10/05/2018 No BM ALL - -		1001117	Μ	40	BU + FLU + CY	28/03/2018	Yes	BM	ALL	-	-	
1001121 M 10 CY + ATG + TBI 10/05/2018 No BM ALL - -		1001118	Μ	29	CY + TBI + ATG	28/03/2018	No	BM	ALL	Yes	No	
		1001119	F	35	CY + TBI	12/04/2018	Yes	BM	CML	Yes	Yes	
1001123 M 26 BU+FLU 23/05/2018 No BM CML		1001121	Μ	10	CY + ATG + TBI	10/05/2018	No	BM	ALL	-	-	
	\	1001123	M	26	BU + FLU	23/05/2018	No	BM	CML	-	_	

#### **GROUP 2**







## PERSPECTIVES

The collection of saliva, in addition to being a non-invasive procedure and easy to perform, is an important way to identify a biomarker. Therefore, we hope, through protein analysis, we will be able to identify potential biomarkers in saliva that may predict the risk of developing GVHD.



Projeto Gráfico: Área de Edição e Produção de Materiais Técnico-Científicos / INCA

