SUPPLEMENTARY MATERIAL

The real-world effectiveness and tolerability of a soothing cream containing the postbiotic *Aquaphilus dolomiae* extract-G2 for skin healing

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Analyses in subgroups according to the type of skin impairment

Table S1: Details of the types of skin impairment in each subgroup of type of skin impairment.

	All subjects (N = 1317)
Common types of dermatologic conditions or wound healing, N (%)	**N = 568 (43.1%)**
Perioral dermatitis	117 (8.9%)
Angular cheilitis	81 (6.2%)
Non-oozing diaper rash	79 (6.0%)
Superficial wound, abrasion	70 (5.3%)
Cheilitis	54 (4.1%)
Superficial burn	49 (3.7%)
Vulvitis	46 (3.5%)
Balanitis	30 (2.3%)
Cuts	25 (1.9%)
Crusted lesions after healing	24 (1.8%)
Retroauricular fissure	21 (1.6%)
Chilblain	13 (1.0%)
Superficial solar erythema	12 (0.9%)
Insect bite	7 (0.5%)
Senile pruritus (pruritus sine materia)	6 (0.5%)
Skin impairment due to previous surgery or dermatologic procedures, N (%)	**N = 560 (42.5%)**
Post-laser	181 (13.7%)
Post-cryotherapy	140 (10.6%)
Post-peeling	98 (7.4%)
After excision and suturing	48 (3.6%)
Post-electrocoagulation	47 (3.5%)
Simple suture	44 (3.3%)
After excision and healing	18 (1.4%)
Post-photodynamic therapy	10 (0.8%)
Skin impairment due to oncologic treatments, N (%)	**N = 189 (14.4%)**
Radiodermatitis (grade 1)	108 (8.2%)
Post-surgical scars	63 (4.7%)
Fissures	20 (1.5%)

Table S2: Overall product effectiveness, tolerability and user satisfaction in all subjects and in subgroups according to the type of skin impairment.

	All types of skin impairment (all subjects) (N = 1317)	Common types of dermatologic conditions or wound healing (N = 568)	Skin impairment due to previous surgery or dermatologic procedures (N = 560)	Skin impairment due to oncologic treatments (N = 189)
Overall effectiveness, N (%)	**n = 1302**	**n = 563**	**n = 556**	**n = 183**
Very effective	722 (55.5)	300 (53.3)	359 (64.6)	63 (34.4)
Effective	499 (38.3)	216 (38.4)	177 (31.8)	106 (57.9)
Moderately effective	65 (5.0)	38 (6.7)	15 (2.7)	12 (6.6)
Not effective	16 (1.2)	9 (1.6)	5 (0.9)	2 (1.1)
Tolerability, N (%)	**n = 1297**	**n = 558**	**n = 552**	**n = 187**
Very good	1148 (88.5)	471 (84.4)	513 (92.9)	164 (87.7)
Good	130 (10.0)	76 (13.6)	35 (6.3)	19 (10.2)
Moderate	14 (1.1)	8 (1.4)	3 (0.5)	3 (1.6)
Poor	5 (0.4)	3 (0.5)	1 (0.2)	1 (0.5)
Overall user satisfaction, N (%)	**n = 1289**	**n = 555**	**n = 547**	**n = 187**
Very satisfied	779 (60.4)	338 (60.9)	373 (68.2)	68 (36.4)
Satisfied	467 (36.2)	192 (34.6)	163 (29.8)	112 (59.9)
Not satisfied	35 (2.7)	20 (3.6)	10 (1.8)	5 (2.7)
Not at all satisfied	8 (0.6)	5 (0.9)	1 (0.2)	2 (1.1)
User satisfaction with ease of application, N (%)	**n = 1290**	**n = 556**	**n = 548**	**n = 186**
Very satisfied	949 (73.6)	442 (79.5)	415 (75.7)	92 (49.5)
Satisfied	314 (24.3)	110 (19.8)	122 (22.3)	82 (44.1)
Not satisfied	23 (1.8)	4 (0.7)	9 (1.6)	10 (5.4)
Not at all satisfied	4 (0.3)	0 (0)	2 (0.4)	2 (1.1)
User satisfaction with comfort of application, N (%)	**n = 1284**	**n = 550**	**n = 548**	**n = 186**
Very satisfied	893 (69.5)	417 (75.8)	387 (70.6)	89 (47.8)
Satisfied	342 (26.6)	117 (21.3)	135 (24.6)	90 (48.4)
Not satisfied	44 (3.4)	15 (2.7)	23 (4.2)	6 (3.2)
Not at all satisfied	5 (0.4)	1 (0.2)	3 (0.5)	1 (0.5)
User satisfaction with rapid repair/healing, N (%)	**n = 1269**	**n = 551**	**n = 544**	**n = 174**
Very satisfied	777 (61.2)	333 (60.4)	362 (66.5)	87 (47.1)
Satisfied	439 (34.6)	191 (34.7)	168 (30.9)	80 (46.0)
Not satisfied	43 (3.4)	22 (4.0)	10 (1.8)	11 (6.3)
Not at all satisfied	10 (0.8)	5 (0.9)	4 (0.7)	1 (0.6)

User satisfaction with good quality of repair/healing, N (%)	n = 1271	n = 553	n = 543	n = 176
Very satisfied	828 (65.1)	359 (64.9)	378 (69.6)	91 (51.7)
Satisfied	391 (30.7)	162 (29.3)	153 (28.2)	76 (43.2)
Not satisfied	43 (3.4)	27 (4.9)	9 (1.7)	7 (4.0)
Not at all satisfied	10 (0.8)	5 (0.9)	3 (0.6)	2 (1.1)

Abbreviations: N, number of subjects; n, number of subjects for whom data were available.

Analyses in subgroups according to age categories

Table S3: Details of the types of skin impairment in each age subgroup.

	0-23 months N = 77	2-17 years N = 144	18-64 years N = 811	≥65 years N = 276
Common types of dermatologic conditions or wound healing, N (%)	**n = 75 (97.4%)**	**n = 124 (86.1%)**	**n = 290 (35.8%)**	**n = 75 (27.2%)**
Perioral dermatitis	7 (9.3%)	31 (25.0%)	72 (24.8%)	6 (8.0%)
Angular cheilitis	1 (1.3%)	21 (16.9%)	44 (15.2%)	15 (20.0%)
Non-oozing diaper rash	56 (74.7%)	15 (12.1%)	6 (2.1%)	1 (1.3%)
Superficial wound, abrasion	3 (4.0%)	12 (9.7%)	32 (11.0%)	22 (29.3%)
Cheilitis	1 (1.3%)	21 (16.9%)	24 (8.3%)	7 (9.3%)
Superficial burn	2 (2.7%)	5 (4.0%)	38 (13.1%)	4 (5.3%)
Vulvitis	4 (5.3%)	11 (8.9%)	24 (8.3%)	7 (9.3%)
Balanitis	0 (0%)	9 (7.3%)	18 (6.2%)	3 (4.0%)
Cuts	1 (1.3%)	2 (1.6%)	18 (6.2%)	3 (4.0%)
Crusted lesions after healing	4 (5.3%)	6 (4.8%)	8 (2.8%)	6 (8.0%)
Retroauricular fissure	4 (5.3%)	7 (5.6%)	9 (3.1%)	1 (1.3%)
Chilblain	0 (0%)	2 (1.6%)	7 (2.4%)	4 (5.3%)
Superficial solar erythema	0 (0%)	1 (0.8%)	9 (3.1%)	2 (2.7%)
Insect bite	0 (0%)	0 (0%)	7 (2.4%)	0 (0%)
Senile pruritus (pruritus sine materia)	0 (0%)	0 (0%)	2 (0.7%)	4 (5.3%)
Skin impairment due to previous surgery or dermatologic procedures, N (%)	**n = 2 (2.6%)**	**n = 17 (11.8%)**	**n = 397 (49.0%)**	**n = 140 (50.7%)**
Post-laser	0 (0%)	2 (11.8%)	144 (36.3%)	33 (23.6%)
Post-cryotherapy	0 (0%)	4 (23.5%)	68 (17.1%)	67 (47.9%)
Post-peeling	0 (0%)	3 (17.6%)	84 (21.2%)	10 (7.1%)
After excision and suturing	1 (50.0%)	5 (29.4%)	27 (6.8%)	15 (10.7%)
Post-electrocoagulation	0 (0%)	0 (0%)	34 (8.6%)	13 (9.3%)
Simple suture	2 (100%)	3 (17.6%)	32 (8.1%)	7 (5.0%)
After excision and healing	0 (0%)	0 (0%)	14 (3.5%)	4 (2.9%)
Post-photodynamic therapy	0 (0%)	0 (0%)	4 (1.0%)	6 (4.3%)
Skin impairment due to oncologic treatments, N (%)	**n = 0 (0%)**	**n = 3 (2.1%)**	**n = 124 (15.3%)**	**n = 61 (22.1%)**
Radiodermatitis (grade 1)	0 (0%)	0 (0%)	79 (63.7%)	28 (45.9%)
Post-surgical scars	0 (0%)	3 (100%)	40 (32.3%)	20 (32.8%)
Fissures	0 (0%)	0 (0%)	7 (5.6%)	13 (21.3%)

Table S4: Severity scores and relative changes of dermatologic clinical signs and symptoms at baseline, immediately after product use and at follow up in subject subgroups according to age categories.

	0-23 months (N = 77)			2-17 years (N = 144)			18-64 years (N = 811)			≥65 years (N = 276)		
Objective clinical signs[a]	**BSL**	**IM**	**FU**	**BSL**	**IM**	**FU**	**BSL**	**IM**	**FU**	**BSL**	**IM**	**FU**
N subjects	*75*		*72*	*133*		*136*	*742*		*762*	*261*		*263*
Total score (mean, SD)	3.9 (2.3)	ND	0.7** (1.0)	4.1 (2.3)	ND	0.7** (1.2)	3.7 (2.4)	ND	0.8** (1.2)	3.9 (2.6)	ND	1.0** (1.4)
Percentage of decrease (%)			-82.1%			-82.9%			-78.4%			-74.4%
Relative changes (N, %)			*71*			*131*			*714*			*252*
Improved			63 (88.7)			125 (95.4)			583 (81.7)			205 (81.3)
Not changed			5 (7.0)			6 (4.6)			87 (12.2)			33 (13.1)
Worsened			3 (4.2)			0 (0)			44 (6.2)			14 (5.6)
Subjective clinical symptoms[a]	**BSL**	**IM**	**FU**	**BSL**	**IM**	**FU**	**BSL**	**IM**	**FU**	**BSL**	**IM**	**FU**
N subjects	*60*	*41*	*65*	*128*	*114*	*135*	*762*	*610*	*752*	*255*	*202*	*258*
Total score (mean, SD)	4.0 (4.1)	2.1** (3.2)	0.3** (0.8)	5.9 (3.5)	2.6** (2.3)	0.7** (1.4)	5.8 (3.8)	3.0** (2.7)	0.9** (1.8)	5.7 (3.9)	3.0** (2.4)	0.9** (1.7)
Percentage of decrease (%)		-47.5%	-92.5%		-55.9%	-88.1%		-48.3%	-84.5%		-47.4%	-84.2%
Relative changes (N, %)		*39*	*56*		*113*	*127*		*601*	*723*		*201*	*243*
Improved		30 (76.9)	41 (73.2)		102 (90.3)	114 (89.8)		530 (88.2)	621 (85.9)		180 (89.6)	209 (86.0)
Not changed		9 (23.1)	15 (26.8)		10 (8.8)	11 (8.7)		66 (11.0)	61 (8.4)		19 (9.5)	21 (8.6)
Worsened		0 (0)	0 (0)		1 (0.9)	2 (1.6)		5 (0.8)	41 (5.7)		2 (1.0)	13 (5.3)

Abbreviations: BSL, baseline; FU, follow up; IM, immediately after product application; N, number of subjects; ND, not determined; SD, standard deviation.

[a] The scale used for assessing the severity of each sign or symptom ranged from 0 (none) to 3 (severe). Therefore, the highest possible total scores were 12 for objective signs and 15 for subjective symptoms.

* p-value <0.05, ** p-value ≤0.0001 (paired Wilcoxon test for intra-group comparisons of scores).

Table S5: Overall product effectiveness and tolerability in subgroups according to age.

	0-23 months (N = 77)	2-17 years (N = 144)	18-64 years (N = 811)	≥65 years (N = 276)
Overall effectiveness, N (%)	**n = 77**	**n = 144**	**n = 799**	**n = 273**
Very effective	53 (68.8)	84 (58.3)	428 (53.66)	153 (56.0)
Effective	18 (23.4)	51 (35.4)	321 (40.2)	105 (38.5)
Moderately effective	4 (5.2)	8 (5.6)	40 (5.0)	13 (4.8)
Not effective	2 (2.6)	1 (1.7)	10 (1.3)	2 (0.7)
Tolerability, N (%)	**n = 75**	**n = 141**	**n = 798**	**n = 274**
Very good	70 (93.3)	120 (85.1)	713 (89.3)	239 (87.2)
Good	3 (4.0)	20 (14.2)	72 (9.0)	33 (12.0)
Moderate	2 (2.7)	1 (0.7)	9 (1.1)	1 (0.4)
Poor	0 (0)	0 (0)	4 (0.5)	1 (0.4)
User satisfaction with rapid repair/healing, N (%)	**n = 76**	**n = 144**	**n = 798**	**n = 272**
Very satisfied	55 (72.4)	107 (74.3)	492 (61.7)	175 (64.3)
Satisfied	12 (15.8)	30 (20.8)	235 (29.4)	75 (27.6)
Not satisfied	6 (7.9)	5 (3.5)	57 (7.1)	19 (7.0)
Not at all satisfied	3 (3.9)	2 (1.4)	14 (1.8)	3 (1.1)
User satisfaction with good quality of repair/healing, N (%)	**n = 76**	**n = 144**	**n = 792**	**n = 270**
Very satisfied	58 (76.3)	107 (74.3)	524 (66.2)	178 (65.9)
Satisfied	11 (14.5)	31 (21.5)	207 (26.1)	68 (25.2)
Not satisfied	5 (6.6)	5 (3.5)	50 (6.3)	22 (8.1)
Not at all satisfied	2 (2.6)	1 (0.7)	11 (1.4)	2 (0.7)

Abbreviations: N, number of subjects; n, number of subjects for whom data were available.

Analyses in subgroups according to the frequency of product application

Table S6: Data on severity scores of dermatologic clinical signs and symptoms, overall effectiveness and tolerability in subject subgroups according to the frequency of product application.

	Once daily (N = 168)		Twice daily (N = 780)		Three or more times daily (N = 342)	
Objective clinical signs[a]	**BSL**	**FU**	**BSL**	**FU**	**BSL**	**FU**
N subjects	*156*	*149*	*718*	*742*	*319*	*326*
Total score (mean, SD)	3.4 (2.6)	1.1** (1.6)	3.8 (2.4)	0.8** (1.2)	3.9 (2.5)	0.8** (1.2)
Percentage of decrease (%)		-67.6%*		-78.9%		-79.5%
Relative changes (N, %)		*144*		*696*		*311*
Improved		109 (75.7)*		597 (85.8)		254 (81.7)
Not changed		23 (16.0)		61 (8.8)		47 (15.1)
Worsened		12 (8.3)		38 (5.5)		10 (3.2)
Subjective clinical symptoms[a]	**BSL**	**FU**	**BSL**	**FU**	**BSL**	**FU**
N subjects	*155*	*143*	*716*	*732*	*316*	*319*
Total score (mean, SD)	4.5 (4.0)	1.2** (2.1)	5.7 (3.7)	0.8** (1.7)	6.2 (3.8)	0.9** (1.7)
Percentage of decrease (%)		-73.3%**		-86.0%		-85.5%
Relative changes (N, %)		*137*		*688*		*308*
Improved		98 (71.5)**		606 (88.1)		268 (87.0)
Not changed		21 (15.3)		52 (7.6)		32 (10.4)
Worsened		18 (13.1)		30 (4.4)		8 (2.6)
Overall effectiveness, N (%)	**n = 164**		**n = 771**		**n = 342**	
Very effective	61 (37.2)		440 (57.1)		205 (59.9)	
Effective	88 (53.7)		292 (37.9)		110 (32.2)	
Moderately effective	11 (6.7)		32 (4.2)		22 (6.4)	
Not effective	4 (2.4)		7 (0.9)		5 (1.5)	
Tolerability, N (%)	**n = 166**		**n = 772**		**n = 337**	
Very good	137 (82.5)		688 (89.1)		302 (89.6)	
Good	23 (13.9)		76 (9.8)		30 (8.9)	
Moderate	5 (3.0)		5 (0.6)		4 (1.2)	
Poor	1 (0.6)		3 (0.7)		1 (0.3)	

Abbreviations: BSL, baseline; FU, follow up; N, number of subjects; n, number of subjects for whom data were available; SD, standard deviation.

[a] The scale used for assessing the severity of each sign or symptom ranged from 0 (none) to 3 (severe). Therefore, the highest possible total scores were 12 for objective signs and 15 for subjective symptoms.

* p-value <0.05, ** p-value ≤0.0001 (paired Wilcoxon test for intra-group comparisons of scores, Kruskall-Wallis test for inter-group comparisons of percentage of decrease, and Chi² test for inter-group comparisons of improvement rates).

Analyses in subgroups according to the type of regimen

Table S7: Data on severity scores of dermatologic clinical signs and symptoms, overall effectiveness and tolerability in subject subgroups according to the regimen type.

	Study product used alone (N = 842)		Study product used in combination (N = 475)	
Objective clinical signs[a]	**BSL**	**FU**	**BSL**	**FU**
N subjects	*800*	*794*	*419*	*448*
Total score (mean, SD)	3.5 (2.4)	0.8** (1.1)	4.2 (2.6)	0.9** (1.5)
Percentage of decrease (%)		-77.1%*		-78.6%
Relative changes (N, %)		*766*		*410*
Improved		626 (81.7)		356 (86.8)
Not changed		95 (12.4)		37 (9.0)
Worsened		45 (5.9)		17 (4.1)
Subjective clinical symptoms[a]	**BSL**	**FU**	**BSL**	**FU**
N subjects	*778*	*770*	*435*	*449*
Total score (mean, SD)	5.2 (3.7)	0.8** (1.7)	6.6 (3.9)	0.9** (1.8)
Percentage of decrease (%)		-84.6%**		-86.4%
Relative changes (N, %)		*729*		*428*
Improved		618 (84.8)		375 (87.6)
Not changed		70 (9.6)		38 (8.9)
Worsened		41 (5.6)		15 (3.5)
Overall effectiveness, N (%)	**n = 834**		**n = 468**	
Very effective	455 (54.6)		267 (57.1)	
Effective	326 (39.1)		173 (37.0)	
Moderately effective	45 (5.4)		20 (4.3)	
Not effective	8 (1.0)		8 (1.7)	
Tolerability, N (%)	**n = 830**		**n = 467**	
Very good	749 (90.2)		399 (85.4)	
Good	72 (8.7)		58 (12.4)	
Moderate	6 (0.7)		8 (1.7)	
Poor	3 (0.4)		2 (0.4)	

Abbreviations: BSL, baseline; FU, follow up; N, number of subjects; n, number of subjects for whom data were available; SD, standard deviation.

[a] The scale used for assessing the severity of each sign or symptom ranged from 0 (none) to 3 (severe). Therefore, the highest possible total scores were 12 for objective signs and 15 for subjective symptoms.

* p-value <0.05, ** p-value ≤0.0001 (Wilcoxon test for intra-group and inter-group comparisons of scores or percentage of decrease, and Chi² test for inter-group comparisons of improvement rates).