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LAMPIRAN

Lampiran 1. Surat Izin Etik

KEMENTERIAN PENDIDIKAN, KEBUDAYAAN, RISET DAN TEKNOLOGI
UNIVERSITAS HASANUDDIN FAKULTAS KEDOKTERAN
KOMITE ETIK PENELITIAN UNIVERSITAS HASANUDDIN
RSPTN UNIVERSITAS HASANUDDIN
RSUP Dr. WAHIDIN SUDIROHUSODO MAKASSAR
Sekretariat : Lantai 2 Gedung Laboratorium Terpadu
JL.PERINTIS KEMERDEKAAN KAMPUS TAMALANREA KM.10 MAKASSAR 90245.
Contact Person: dr. Agussalim Bukhari..MMed.PhD, SpGK TELP. 081241850858, 0411 5780103, Fax : 0411-581431

REKOMENDASI PERSETUJUAN ETIK

Nomor : 910/UN4.6.4.5.31/ PP36/ 2023

Tanggal: 28 Nopember 2023

Dengan ini Menyatakan bahwa Protokol dan Dokumen yang Berhubungan Dengan Protokol berikut ini telah mendapatkan Persetujuan Etik :

No Protokol	UH23100810	No Sponsor	
Peneliti Utama	**Rahmah Apriyani Rasyid, S.ST**	Sponsor	
Judul Peneliti	Analisis Advanced Glicated End Products dengan Leptin Serum pada Subjek Diabetes Melitus Tipe 2		
No Versi Protokol	**2**	Tanggal Versi	**21 Nopember 2023**
No Versi PSP		Tanggal Versi	
Tempat Penelitian	Rumah Sakit Pendidikan Universitas Hasanuddin dan RS Wahidin Sudirohusodo Makassar		
Jenis Review	☐ Exempted ☒ Expedited ☐ Fullboard Tanggal	Masa Berlaku **28 Nopember 2023** sampai **28 Nopember 2024**	Frekuensi review lanjutan
Ketua KEP Universitas Hasanuddin	Nama **Prof. dr. Muh Nasrum Massi,PhD,SpMK, Subsp. Bakt(K)**	Tanda tangan	
Sekretaris KEP Universitas Hasanuddin	Nama **dr. Firdaus Hamid, PhD, SpMK(K)**	Tanda tangan	

Kewajiban Peneliti Utama:

- Menyerahkan Amandemen Protokol untuk persetujuan sebelum di implementasikan
- Menyerahkan Laporan SAE ke Komisi Etik dalam 24 Jam dan dilengkapi dalam 7 hari dan Lapor SUSAR dalam 72 Jam setelah Peneliti Utama menerima laporan
- Menyerahkan Laporan Kemajuan (progress report) setiap 6 bulan untuk penelitian resiko tinggi dan setiap setahun untuk penelitian resiko rendah
- Menyerahkan laporan akhir setelah Penelitian berakhir
- Melaporkan penyimpangan dari prokol yang disetujui (protocol deviation / violation)
- Mematuhi semua peraturan yang ditentukan

Lampiran 2. Surat Izin Penelitian

HUM-RC	ADMINISTRASI	FORMULIR 2
	Nomor : 507/11/FR2/2023	Tanggal : 4 Desember 2023

SURAT KETERANGAN
SELESAI PENGAMBILAN DATA/ ANALISA BAHAN HAYATI

Dengan hormat,

Dengan ini menerangkan bahwa peneliti/mahasiswa berikut ini :

Nama	: Rahmah Apriyani Rasyid
NIM	: P062221011
Institusi	: S2 Ilmu Biomedik Sekolah PascaSarjana UNHAS
Judul Penelitian	**: Analisis Advanced Glicated End Products (Ages) Dengan Leptim Serum Pada Subyek Diabetes Melitus Tipe 2**

Telah selesai melakukan pengambilan data/ analisa bahan hayati :

Pada tanggal	: 1 Desember 2023
Jumlah subjek	: ± 88 sampel
Jenis data	: Data Primer

Dengan staf pendamping/pembimbing :

Nama	: Muhammad Yusuf Usman, S.Si.
Konsultan	: -

Surat keterangan ini juga merupakan penjelasan bahwa peneliti/mahasiswa diatas tidak mempunyai sangkutan lagi pada unit/laboratorium kami.

Demikian surat ini dibuat untuk dipergunakan sebagaimana mestinya.

Pendamping/Pembimbing

Muhammad Yusuf Usman, S.Si
NIP

Mengetahui,
Kepala Laboratorium,

HUM-RC
science for a better future

dr. Rusdina Bte Ladju, Ph.D
NIP 198108302012122002

Lampiran 3. Data Primer

No	Kode Sampel	JK	Umur	TB (cm)	BB (kg)	IMT (kg/m2)	GDP (mg/dL)	AGEs (ng/mL)	Leptin (ng/mL)
1	1	L	49	160	71.7	28.01	192	33.6338	2.843
2	2	L	41	165	65.3	23.99	182	30.7837	0.825
3	3	P	61	154	55.1	23.23	132	22.1458	9.571
4	4	L	50	160	63.0	24.61	237	23.9650	0.885
5	5	P	58	160	70.2	27.42	149	13.7168	6.529
6	6	P	54	146	43.1	20.22	195	20.5085	1.264
7	8	P	76	149	50.2	22.61	87	17.9549	0.852
8	9	P	63	156	54.4	22.35	127	39.6776	20.453
9	10	L	62	161	46.1	17.78	119	25.4473	0.032
10	11	P	61	163	80.0	30.11	132	21.3103	2.079
11	12	P	62	155	48.1	20.02	105	12.2075	2.938
12	13	L	68	170	70.2	24.29	104	14.7813	7.603
13	14	P	72	155	51.1	21.27	218	16.8027	3.331
14	16	P	53	156	66.4	27.28	171	11.0216	6.502
15	17	P	73	149	51.1	23.02	161	25.4338	18.973
16	18	L	64	159	51.3	20.29	85	21.0677	4.891
17	20	P	63	140	46.5	23.72	92	22.4086	12.941
18	21	P	50	154	65.4	27.58	130	16.8768	22.542
19	22	L	63	175	90.0	29.39	161	14.5186	19.918
20	23	P	48	150	53.1	23.60	143	20.4546	12.143
21	25	P	58	150	52.2	23.20	81	20.5018	24.095
22	26	L	56	164	73.6	27.36	103	32.4277	1.552
23	28	P	47	162	71.1	27.09	212	19.7741	5.872
24	30	L	48	170	66.3	22.94	131	18.7634	0.369
25	31	L	54	167	62.2	22.30	115	13.7100	1.73
26	33	P	59	150	51.1	22.71	145	22.5164	9.174
27	34	P	69	152	60.2	26.06	128	18.3726	3.377
28	35	P	58	160	55.4	21.64	139	22.0649	0.383
29	36	P	83	145	56.5	26.87	102	17.8605	3.83
30	37	P	61	156	51.4	21.12	120	33.3980	2.325
31	38	P	61	150	54.4	24.18	150	20.2659	12.556
32	39	P	57	149	58.2	26.22	130	24.6388	2.472
33	41	L	66	175	75.7	24.72	102	20.6567	1.583

34	42	P	61	146	72.4	33.97	158	24.2952	13.879
35	43	L	54	175	73.8	24.10	149	29.7461	3.07
36	44	P	58	139	32.6	16.87	95	15.4753	0.158
37	45	P	59	158	64.3	25.76	134	21.5933	14.606
38	46	L	54	165	53.1	19.50	105	25.0026	0.199
39	47	P	74	150	49.6	22.04	129	24.0593	6.52
40	48	P	61	165	67.0	24.61	130	22.0178	18.87
41	49	P	49	152	58.3	25.23	105	29.3081	9.387
42	50	P	74	158	63.6	25.48	159	14.3164	12.081
43	51	L	61	167	65.1	23.34	164	17.2743	2.706
44	52	P	49	152	55.3	23.94	172	22.5433	0.825
45	54	P	49	150	83.0	36.89	75	18.2581	24.581
46	58	L	55	160	72.1	28.16	164	22.9611	5.241
47	62	P	69	143	45.7	22.35	141	26.1076	1.527
48	64	L	48	145	45.6	21.69	131	18.7971	10.964
49	67	L	57	167	70.9	25.42	123	27.0779	14.455
50	69	P	64	156	56.1	23.05	129	36.9892	7.945
51	72	P	53	160	82.4	32.19	168	26.0470	16.95
52	73	P	52	163	87.4	32.90	223	32.7781	23.574
53	76	L	56	160	83.3	32.54	160	17.8403	5.317
54	77	P	61	157	72.1	29.25	277	12.6320	19.952
55	79	L	59	167	59.5	21.33	143	19.0396	1.672
56	80	P	58	150	51.3	22.80	201	28.2840	1.336
57	82	P	79	138	45.8	24.05	152	17.6180	28.606
58	83	P	36	150	60.4	26.84	153	23.3990	11.753
59	85	P	30	151	73.5	32.24	185	23.5742	15.669
60	90	P	55	152	49.8	21.55	156	18.6691	2.12
61	91	P	22	150	45.6	20.27	75	28.4861	7.056
62	95	L	69	160	50.3	19.65	91	19.2081	1.03
63	100	P	38	146	65.2	30.59	90	17.1463	25.082
64	101	L	46	164	75.2	27.96	224	23.9313	3.908
65	105	L	57	163	63.2	23.79	159	28.5602	0.378
66	108	L	37	163	95.7	36.02	291	22.3816	5.572
67	110	L	57	167	67.2	24.10	176	28.7556	3.514
68	111	L	64	168	78.4	27.78	239	24.8005	19.86

Lampiran 4. Analisa Data

1. Karakteristik Subjek Penelitian

a. Jenis Kelamin

Jenis Kelamin

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Laki-laki	26	37.7	37.7	37.7
	Perempuan	43	62.3	62.3	100.0
	Total	69	100.0	100.0	

b. Umur dan GDP

Descriptives

			Statistic	Std. Error
Umur (Tahun)	Mean		57.49	1.328
	95% Confidence Interval for Mean	Lower Bound	54.84	
		Upper Bound	60.14	
	5% Trimmed Mean		57.83	
	Median		58.00	
	Variance		121.607	
	Std. Deviation		11.028	
	Minimum		22	
	Maximum		83	
	Range		61	
	Interquartile Range		12	
	Skewness		-.493	.289
	Kurtosis		1.218	.570
GDP (mg/dL)	Mean		146.99	5.530
	95% Confidence Interval for Mean	Lower Bound	135.95	
		Upper Bound	158.02	
	5% Trimmed Mean		144.27	
	Median		141.00	
	Variance		2109.720	
	Std. Deviation		45.932	
	Minimum		75	
	Maximum		291	
	Range		216	
	Interquartile Range		49	
	Skewness		.921	.289
	Kurtosis		1.028	.570

c. IMT, AGEs, dan Leptin

Descriptives

			Statistic	Std. Error
IMT (kg/m2)	Mean		25.0467	.49809
	95% Confidence Interval for Mean	Lower Bound	24.0527	
		Upper Bound	26.0406	
	5% Trimmed Mean		24.8558	
	Median		24.1000	
	Variance		17.118	
	Std. Deviation		4.13743	
	Minimum		16.87	
	Maximum		36.89	
	Range		20.02	
	Interquartile Range		5.04	
	Skewness		.807	.289
	Kurtosis		.605	.570
AGEs (ng/mL)	Mean		22.265996	.7219559
	95% Confidence Interval for Mean	Lower Bound	20.825355	
		Upper Bound	23.706636	
	5% Trimmed Mean		22.044982	
	Median		22.017800	
	Variance		35.964	
	Std. Deviation		5.9970161	
	Minimum		11.0216	
	Maximum		39.6776	
	Range		28.6560	
	Interquartile Range		7.5329	
	Skewness		.603	.289
	Kurtosis		.301	.570
Leptin (ng/mL)	Mean		8.30319	.942886
	95% Confidence Interval for Mean	Lower Bound	6.42169	
		Upper Bound	10.18469	
	5% Trimmed Mean		7.78186	
	Median		5.57200	
	Variance		61.343	
	Std. Deviation		7.832199	
	Minimum		.032	
	Maximum		28.606	
	Range		28.574	
	Interquartile Range		11.709	
	Skewness		.919	.289
	Kurtosis		-.321	.570

2. Uji Normalitas

a. Keseluruhan

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
IMT (kg/m2)	.126	69	.009	.952	69	.010
AGEs (ng/mL)	.076	69	.200*	.974	69	.150
Leptin (ng/mL)	.169	69	.000	.869	69	.000

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

b. Laki-laki

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
IMT (kg/m2)	.158	26	.094	.950	26	.230
AGEs (ng/mL)	.123	26	.200*	.967	26	.548
Leptin (ng/mL)	.218	26	.003	.761	26	.000

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

c. Perempuan

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
IMT (kg/m2)	.132	43	.056	.946	43	.041
AGEs (ng/mL)	.113	43	.200*	.954	43	.087
Leptin (ng/mL)	.134	43	.051	.916	43	.004

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

3. Uji perbedaan Kelompok jenis kelamin pada kadar AGEs dan Leptin

a. Uji Perbedaan Kadar AGEs Berdasarkan Kategori Jenis Kelamin

Group Statistics

	Kelompok Jenis Kelamin	N	Mean	Std. Deviation	Std. Error Mean
Kadar AGEs	Laki-laki	26	22,801685	5,6255878	1,1032685
	Perempuan	43	21,942091	6,2534038	,9536351

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Kadar AGEs	Equal variances assumed	,002	,962	,574	67	,568	,8595939	1,4972360	-2,1289016	3,8480894
	Equal variances not assumed			,589	57,280	,558	,8595939	1,4582940	-2,0602803	3,7794681

b. Uji Perbedaan Kadar Leptin Berdasarkan Kategori Jenis Kelamin

Group Statistics

	Kelompok Jenis Kelamin	N	Mean	Std. Deviation	Std. Error Mean
Kadar Leptin	Laki-laki	26	4,85542	5,583418	1,094998
	Perempuan	43	10,38788	8,303818	1,266320

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Kadar Leptin	Equal variances assumed	9,383	,003	-3,007	67	,004	-5,532461	1,840005	-9,205126	-1,859796
	Equal variances not assumed			-3,305	66,154	,002	-5,532461	1,674093	-8,874751	-2,190170

c. Uji Perbedaan Kadar AGEs Berdasarkan Kategori umur

Group Statistics

	Kelompok Umur	N	Mean	Std. Deviation	Std. Error Mean
Kadar AGEs	≤ 50	17	23,063324	4,9567317	1,2021840
	> 50	52	22,005331	6,3216375	,8766534

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Kadar AGEs	Equal variances assumed	1,059	,307	,629	67	,532	1,0579928	1,6829592	-2,3012080	4,4171935
	Equal variances not assumed			,711	34,482	,482	1,0579928	1,4878735	-1,9641751	4,0801607

d. Uji Perbedaan Kadar Leptin Berdasarkan Kategori umur

Group Statistics

	Kelompok Umur	N	Mean	Std. Deviation	Std. Error Mean
Kadar Leptin	≤ 50	17	9,42800	8,332056	2,020820
	> 50	52	7,93546	7,710493	1,069253

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Kadar Leptin	Equal variances assumed	,036	,851	,679	67	,499	1,492538	2,196890	-2,892473	5,877550
	Equal variances not assumed			,653	25,584	,520	1,492538	2,286267	-3,210673	6,195750

4. Uji Korelasi AGEs dan Leptin

a. Keseluruhan

Correlations

		AGEs (ng/mL)	Leptin (ng/mL)
AGEs (ng/mL)	Pearson Correlation	1	-.045
	Sig. (2-tailed)		.711

	N	69	69
Leptin (ng/mL)	Pearson Correlation	-.045	1
	Sig. (2-tailed)	.711	
	N	69	69

Correlations

			AGEs (ng/mL)	Leptin (ng/mL)
Spearman's rho	AGEs (ng/mL)	Correlation Coefficient	1.000	-.102
		Sig. (2-tailed)	.	.404
		N	69	69
	Leptin (ng/mL)	Correlation Coefficient	-.102	1.000
		Sig. (2-tailed)	.404	.
		N	69	69

b. Laki-laki

Correlations

		AGEs (ng/mL)	Leptin (ng/mL)
AGEs (ng/mL)	Pearson Correlation	1	-.228
	Sig. (2-tailed)		.263
	N	26	26
Leptin (ng/mL)	Pearson Correlation	-.228	1
	Sig. (2-tailed)	.263	
	N	26	26

Correlations

			AGEs (ng/mL)	Leptin (ng/mL)
Spearman's rho	AGEs (ng/mL)	Correlation Coefficient	1.000	-.323
		Sig. (2-tailed)	.	.107
		N	26	26
	Leptin (ng/mL)	Correlation Coefficient	-.323	1.000
		Sig. (2-tailed)	.107	.
		N	26	26

c. Perempuan

Correlations

		AGEs (ng/mL)	Leptin (ng/mL)
AGEs (ng/mL)	Pearson Correlation	1	.051
	Sig. (2-tailed)		.747
	N	43	43
Leptin (ng/mL)	Pearson Correlation	.051	1
	Sig. (2-tailed)	.747	
	N	43	43

Correlations

			AGEs (ng/mL)	Leptin (ng/mL)
Spearman's rho	AGEs (ng/mL)	Correlation Coefficient	1.000	.016
		Sig. (2-tailed)	.	.920
		N	43	43
	Leptin (ng/mL)	Correlation Coefficient	.016	1.000
		Sig. (2-tailed)	.920	.
		N	43	43

5. Uji Korelasi IMT dan Leptin

a. Keseluruhan

Correlations

		IMT (kg/m2)	Leptin (ng/mL)
IMT (kg/m2)	Pearson Correlation	1	.455**
	Sig. (2-tailed)		.000
	N	69	69
Leptin (ng/mL)	Pearson Correlation	.455**	1
	Sig. (2-tailed)	.000	
	N	69	69

**. Correlation is significant at the 0.01 level (2-tailed).

Correlations

			IMT (kg/m2)	Leptin (ng/mL)
Spearman's rho	IMT (kg/m2)	Correlation Coefficient	1.000	.492**
		Sig. (2-tailed)	.	.000
		N	69	69
	Leptin (ng/mL)	Correlation Coefficient	.492**	1.000
		Sig. (2-tailed)	.000	.
		N	69	69

**. Correlation is significant at the 0.01 level (2-tailed).

b. Laki-laki

Correlations

		IMT (kg/m2)	Leptin (ng/mL)
IMT (kg/m2)	Pearson Correlation	1	.370
	Sig. (2-tailed)		.063
	N	26	26
Leptin (ng/mL)	Pearson Correlation	.370	1
	Sig. (2-tailed)	.063	
	N	26	26

Correlations

			IMT (kg/m2)	Leptin (ng/mL)
Spearman's rho	IMT (kg/m2)	Correlation Coefficient	1.000	.512**
		Sig. (2-tailed)	.	.007
		N	26	26
	Leptin (ng/mL)	Correlation Coefficient	.512**	1.000
		Sig. (2-tailed)	.007	.

	N	26	26

**. Correlation is significant at the 0.01 level (2-tailed).

c. Perempuan

Correlations

		IMT (kg/m2)	Leptin (ng/mL)
IMT (kg/m2)	Pearson Correlation	1	.512**
	Sig. (2-tailed)		.000
	N	43	43
Leptin (ng/mL)	Pearson Correlation	.512**	1
	Sig. (2-tailed)	.000	
	N	43	43

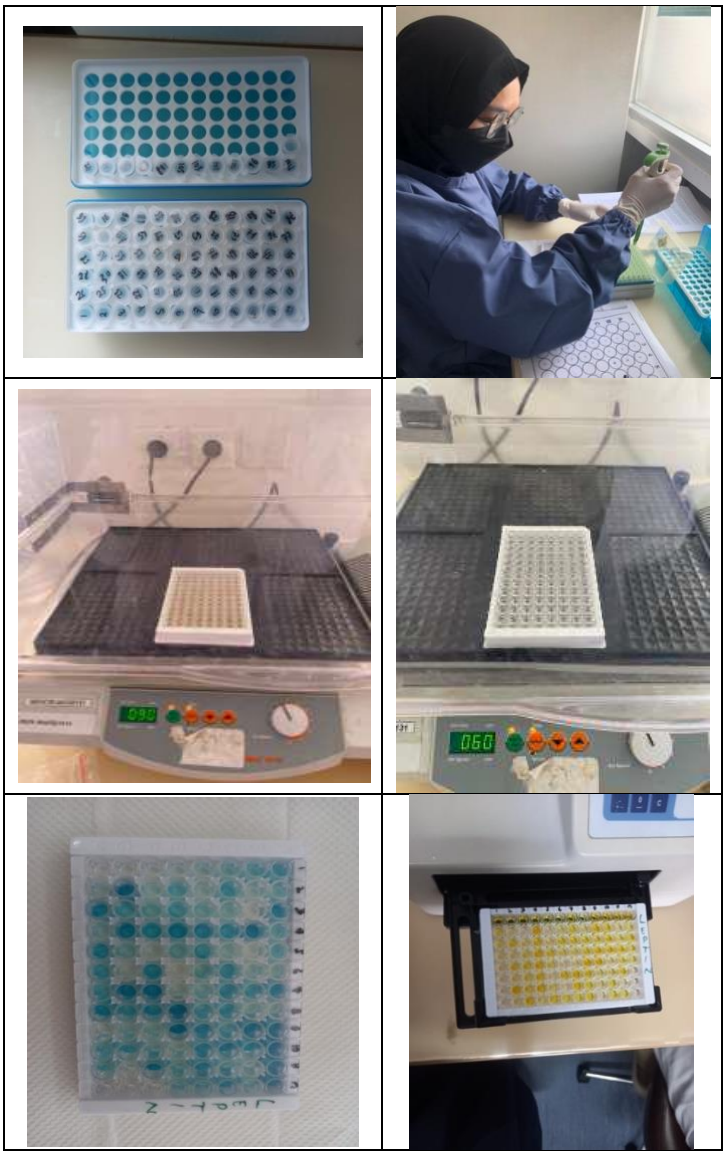
**. Correlation is significant at the 0.01 level (2-tailed).

Correlations

			IMT (kg/m2)	Leptin (ng/mL)
Spearman's rho	IMT (kg/m2)	Correlation Coefficient	1.000	.533**
		Sig. (2-tailed)	.	.000
		N	43	43
	Leptin (ng/mL)	Correlation Coefficient	.533**	1.000
		Sig. (2-tailed)	.000	.
		N	43	43

**. Correlation is significant at the 0.01 level (2-tailed).

Lampiran 5. Dokumentasi



Lampiran 6. Riwayat Hidup

A. Data Pribadi

Nama : Rahmah Apriyani Rasyid
Tempat, tanggal lahir : Pare-pare, 28 April 1991
Agama : Islam
No. HP/email : 085242491441/ rahmahapriyani@gmail.com
Pekerjaan : Pranata Laboratorium Pendidikan
Alamat : Perum Mangga Tiga Blok C14/15

B. Riwayat Pendidikan

NO	STRATA	INSTITUSI	TEMPAT	TAHUN LULUS
1	SD	SDN 78 PAO	Pinrang	2003
2	SMP	SMPN 1 Mattiro Bulu	Pinrang	2006
3	SMA	SMA Negeri 1 Pinrang	Pinrang	2009
4	S1	Poltekkes Kemenkes Makassar (Teknologi Lab. Medik)	Makassar	2013
5	S2 (sementara)	Universitas Hasanuddin (Ilmu Biomedik Pasca Sarjana	Makassar	2022-sekarang

C. Karya ilmiah yang telah di publikasi

Rasyid, Rahmah Apriyani, et al. Analysis of Advanced Glycated End Products and Body Mass Index with Serum Leptin in Type 2 Diabetes Mellitus Subjects. *Community Practitioner,* 2024. 21(07): 769-781. DOI: 10.5281/zenodo.12705480.