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**Pharmaceutical Technology on Natural Medicines in Post Pandemic Recovery**

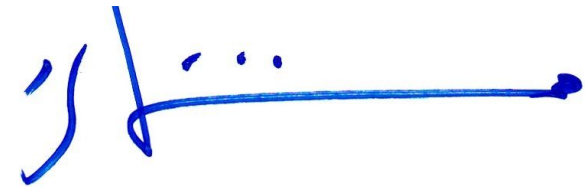
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# The 5th International Seminar on Pharmaceutical Sciences and Technology (ISPST) and The 3rd International Seminar and Expo on Jamu (ISEJ) 2022 embedded in The 13th Annual Meeting ISCC

## Pharmaceutical Technology on Natural Medicines in Post Pandemic Recovery



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## FOREWORD

Honorable Dean of Faculty of Pharmacy, Universitas Padjadjaran,  
Distinguished speakers, including keynote and invited speaker, and all the participants of the The 5th International Seminar on Pharmaceutical Sciences and Technology (ISPST) and 3rd International Seminar and Expo on Jamu (ISEJ) 2022 embedded 13rd Annual Meeting ISCC.

First of all, please allow me to extend my warmest welcome you at the The 5th International Seminar on Pharmaceutical Sciences and Technology (ISPST) and 3rd International Seminar and Expo on Jamu (ISEJ) 2022 embedded 13rd Annual Meeting ISCC in this morning at online zoom.

The 5th ISPST and 3rd ISEJ are a continuation of the 4th ISPST 2020 and 2nd ISEJ 2017. At the 5th ISPST 2022 and 3rd seminars ISEJ collaborated with the Indonesian Society for Cancer and Chemotherapy (ISCC), an Indonesian-Asian cancer research organization that provides a dynamic network for the exchange of scientific information among academics and practitioners who focus on cancer research.

Distinguished guests, ladies, and gentlemen,

On behalf of the committee of this seminar, we reported that this event involved 27 Speakers including 9 keynotes, and 18 invited speakers from 9 countries, The Netherlands, USA, Japan, South Korea, Australia, Malaysia, India, Thailand, and also Indonesia.

The registered participants were 300 participants with details, 73 participants as oral presenters, 79 participants as poster presenters, and 150 participants as regular participants.

We hope that you will gain a lot of benefits from fruitful discussions during this program. We would like to thank to sponsors that help the funding: rector Universitas Padjadjaran, Director General of Higher Education, Research, and Technology, Ministry of Education, Culture, Research and Technology, and Cendo Pharmaceuticals Industry, also support by Product: Paragon Technology and Innovation and Bintang Tujuh. Of course, I would like to express my expression to the organizing committee of this program. I am indeed delighted and thank you for all your effort and hard working in making this program happened.

For all distinguished guests from abroad and from other cities in Indonesia, enjoy this seminar so that you gain insight into pharmaceutical science and make the best use of your time to discuss with the experts.

Thank you very much.

Wassalamu'alaikum Wr Wb.

**Chairman of The 5<sup>th</sup> ISPST – The 3<sup>rd</sup> ISEJ – The 13<sup>th</sup> ISCC**

Prof. apt. Muchtaridi, Ph.D

## **WELCOME SPEECH FROM CHAIRMAN OF INDONESIAN SOCIETY FOR CANCER CHEMOPREVENTION (ISCC)**

Dear colleagues,

We are now slowly but surely moving to the new era after the pandemic. The pandemic undoubtedly opens new ways in disseminating science and technology. Instead of an on-site seminar, we are now flexible in having the hybrid system. Thus, following the success of the last two virtual and hybrid events in 2020 and 2021, this year Indonesian Society for Cancer Chemoprevention (ISCC) in partnership with the Faculty of Pharmacy, Universitas Padjadjaran re organizing an international seminar and meeting. On behalf of ISCC, I am honored to welcome all participants to the 5th International Seminar on Pharmaceutical Sciences and Technology (ISPST), the 3rd International Seminar on Expo of Jamu (ISEJ), and 13th Annual Indonesian Society for Cancer Chemoprevention Conference (ISCC 2022). ISCC continuously accelerates the annual scientific forum to disseminate information and update the latest scientific advances in the field of cancer chemoprevention, and facilitate the exchange of ideas and technology and develop networking and communication among participants. Drug discovery and development is the main topic that the Faculty of Pharmacy Universitas Padjadjaran keen on and it is an indispensable area from cancer chemoprevention. Moreover, “jamu” or herbal medicine is also a big topic that is important in pharmaceutical sciences. In collaboration, this year's event with the theme of “Pharmaceutical Technology on Natural Medicines in Post Pandemic Recovery” is being promoted as a communication forum between academicians and researchers in the fields of pharmaceutical sciences, pharmaceutical technology, and integrated research on Jamu or herbal medicine.

As I mentioned earlier, the hybrid system makes this event much more efficient and accessible globally without reducing its quality. We could not thank enough to our distinguishable invited speakers from all over the world, not only Indonesia, but also from Malaysia, Japan, India, Netherland, USA, and Australia – in total 29 speakers –, for accepting our invitation. We also warmly welcome 133 oral and poster presenters and all the participants. We wish that all of the updated knowledge presented in this seminar would be useful as a comprehensive understanding to improve our academic, research, and professional activities. We encourage all participants to take as much as benefit through this scientific meeting.

Lastly, I would like to deliver our gratitude to the committee and Faculty of Pharmacy, Universitas Padjadjaran for working together to make this event possible and facilitating the ISCC annual meeting.

**Indonesian Society for Cancer Chemoprevention  
Chairman,**

Prof. Dr. apt. Edy Meiyanto, M.Si

## OPENING REMARKS FROM DEAN OF FACULTY OF PHARMACY UNIVERSITAS PADJADJARAN

First of all, I would like to convey my greetings and appreciations to all of the invited speakers especially :

Ir. Budi Gunadi Sadikin, CHFC, CLU. (Ministry of Health)

Prof. Tomoya Uehara, Ph.D. (Chiba University, Japan)

Prof. Edi Meiyanto (President of ISCC/UGM)

Prof. Dr. Sanjay Jachak (NIPER India)

Prof. dr. Maria Yazdanbakhsh (Universiteit Leiden, The Netherlands)

Prof. Taifo Mahmud (Oregon State University, USA)

Prof. Jun-Ya Kato (NAIST-Japan)

Prof. Habibah A. Wahab (President of CADD Asia/Universiti Sains Malaysia)

Prof. Tao Liu (UNSW Australia.)

Thank you for your participation in our event.

Greetings from Universitas Padjadjaran,

Ladies and gentlemen,

It is a great pleasure to welcome you to the joint seminars of the 5th International Seminar on Pharmaceutical Sciences and Technology (ISPST) and the 3rd International Seminar on Expo of Jamu (ISEJ), as a continuation from our previous bi-annual ISPST and ISEJ seminars which are organized by the Faculty of Pharmacy Universitas Padjadjaran and now is also in collaboration with the Indonesian Society for Cancer Chemoprevention (ISCC) which will hold their annual meeting. Similar with our 4<sup>th</sup> ISPST two years ago, this seminar is also held online. Although now we begin to slowly recover from the COVID-19 pandemic, we realise that we still need to be aware of the spread of the virus.

I would like to start by wishing you and your families for your good health. It's a great opportunity that all of us could gather here on the event which serves as a venue for researcher, professional, and students to build many collaborations for their research project and will also enrich collaborations activity in education, research and community service.

The theme of 5th International Seminar on Pharmaceutical Sciences and Technology (ISPST) this year which is held as join seminar with the 3rd International Seminar on Expo of Jamu (ISEJ) is ***Pharmaceutical Technology on Natural Medicines in post pandemic recovery***. I hope the this theme will explore the opportunities for us to start afresh and positive transformations to improve health and wellbeing.

Moreover, I hope this seminar will accomplish all its aims and earnestly desire that all participants will be able to benefit from the presentations and discussions and this seminar will enrich the development of science, not only in Indonesia but also worldwide. I would like to thank the organizing committee for their tremendous efforts to realize this program.

Once again, I am honored to welcome you at this seminar. I wish all of the speakers and participants will gain many benefits and insightful experience.

With Bismillahirrohmanirrahim. I officially open the 5th International Seminar on Pharmaceutical Sciences and Technology (ISPST) and the 3rd International Seminar on Expo of Jamu (ISEJ) embedded with ISCC annual meeting.

### Best Regards

Prof. Dr. Ajeng Diantini, M.Si., Apt.

## **OPENING REMARKS FROM MINISTER OF HEALTH OF THE REPUBLIC INDONESIA**

Excellencies ladies and gentlemen,

In the covid-19 pandemic situation, there was an extreme increase in demand for covid 19 related products. We experience difficulties in obtaining pharmaceutical and medical devices needed for disease control and treatment. Since the pharmaceutical and medical device sectors are still significantly dependent on imports. We realize that Indonesia must build its resilience ensuring that all medicines and medical devices can be produced domestically.

We have developed strategies to build pharmaceutical and medical device resilience. Briefly, the targets are stated in the timeline as shown in the slide. It has indicated the types of raw materials for drugs, vaccines, and medical devices that can be produced domestically. The achievement of these targets is carried out by fixing fundamentals and called processes involving API's stakeholders.

Distinguished guest,

Indonesia is an archipelago country with millions of hectares of tropical forests which consists thousands of species of plants and is home to 80% of the world's medicinal plants.

More than 30 thousand of traditional medicine formulas have been widely used in the community. Indonesia with over 217 million population is a potential market for traditional medicine.

This should be a great opportunity for us to develop an investment in local phytopharmaceuticals manufacturing and contribute to strengthening the resilience of pharmaceuticals.

Excellencies ladies and gentlemen,

I wish you all to have a fruitful discussion during the seminar and it has been a pleasure being with all of you today.

Thank you.

**Best Regard**

Ir. Budi Gunadi Sadikin, CHFC, CLU

## COMMITTEE

Position	Name
Steering Committee	<ol style="list-style-type: none"> <li>1. Prof. Dr. Ajeng Diantini, Apt.</li> <li>2. Prof. Dr. Aliya Nur Hasanah, S.Si., Apt., M.Si.</li> <li>3. Auliya Abdurrohimi Suwantika, S.Si., Apt., MBA.,PhD</li> </ol>
Advisory Board	<ol style="list-style-type: none"> <li>1. Prof. Dr. Apt. Moelyono MW.</li> <li>2. Prof. Dr. Resmi Mustarichie</li> <li>3. Prof. Dr. Apt. Marline Abdassah</li> <li>4. Dr. Apt. Tiana Milanda, M.Si.</li> <li>5. Dr. apt. Sriwidodo</li> </ol>
Chairman	Prof. apt. Muchtaridi, Ph.D
Vice Chairman	Prof. Dr. rer. nat. Muhaimin, M.Si
Secretariate	<ol style="list-style-type: none"> <li>1. Apt. Raden Bayu Indradi, M.Si</li> <li>2. Dr. apt. Diah Lia Aulifa, M.Si.</li> <li>3. Dr. Apt. Eri Amalia, M.Si</li> <li>4. Driyanti Rahayu, M.T</li> <li>5. Apt. Ami Tjitraresmi, M.Si.</li> <li>6. Dr. Apt. Tina Rostinawati, M.Si</li> <li>7. Apt. Yuni Elsa, M.Si., Ph.D</li> <li>8. Apt. Noriska Aliza, M.Si</li> <li>9. Meilinda Setya Praceka, M.Farm</li> <li>10. apt. Luthfi Setiawati, S.Farm</li> <li>11. apt. Wiwit Nurhidayah, M.Farm</li> </ol>
Tresurer	<ol style="list-style-type: none"> <li>1. Dr. apt. Nyi Mekar Saptarini, M.Si</li> <li>2. Dr. apt. Ade Zuhrotun, M.Si</li> </ol>
Scientific Committee	<ol style="list-style-type: none"> <li>1. Dr. apt. Yasmiwar Susilawati, M.Si</li> <li>2. Prof. Dr. rer. nat. Anis Yohana Choirunisaa, M.Si</li> <li>3. Dr. apt. Rd. Maya febriyanti</li> <li>4. Dr. Sri Agung Fitri Kusuma, M.Si</li> <li>5. Apt. Ferry Ferdiansyah, M.Si</li> <li>6. Dr. Apt. Iyan Sopyan, M.Si</li> <li>7. Apt. Gofarana Wilar, M.Si., PhD</li> <li>8. Apt. Holis A. Holik, Ph.D</li> <li>9. Dr. apt. Ida Musfiroh, M.Si</li> </ol>
Program Activity	<ol style="list-style-type: none"> <li>1. Dr. apt. Rimadani Pratiwi, M.Si</li> <li>2. Intan Timur Maisyarah, Ph.D</li> <li>3. Apt. Miski Aghnia, M.Farm., PhD</li> </ol>
Expo	<ol style="list-style-type: none"> <li>1. Dr. med. Apt. Melisa Intan Barliana</li> <li>2. Dr. Apt. Sriwidodo, M.Si</li> </ol>
Publication and Documentation	<ol style="list-style-type: none"> <li>1. Apt. Zelika Mega Rhamadania, M.Si</li> <li>2. Apt. Agus Rusdin, M.Farm.</li> </ol>
IT, Multimedia, and Zoom	<ol style="list-style-type: none"> <li>1. Prof. Apt., Nasrul Wathoni Ph.D</li> <li>2. Dr. apt. Sandra Megantara</li> </ol>
Consumption Section	Dr. Apt. Ellin Febrina, M.Si
Logistic and Supporting Team	<ol style="list-style-type: none"> <li>1. Apt. Imam Adi Wicaksono, M.Si</li> <li>2. Apt. Arif Satria W, M.Si</li> <li>3. BEM KEMAFAR</li> <li>4. Himpunan Mahasiswa Pasca Sarjana Fakultas Farmasi Unpad</li> </ol>



## SCIENTIFIC PROGRAM AND SCHEDULE

Tuesday, 18 October 2022	
Time	Event
07.30 - 08.00	Registration
08.00 - 08.30	Opening Ceremony : Welcome speech of chairman of 5 <sup>th</sup> ISPST and 3 <sup>rd</sup> ISEJ Welcome speech of President of ISCC Welcome speech of Dean of Faculty of Pharmacy, Universitas Padjadjaran Welcome speech of Rector of Universitas Padjadjaran, opening of seminar and expo
08.30 - 09.15	Keynote Speaker I: Ir. Budi Gunadi Sadikin, CHFC, CLU. (Ministry of Health)*
09.15 - 09.45	Keynote Speaker II: Prof. Tomoya Uehara, Ph.D. (Chiba University, Japan)
09.45 - 10.00	QnA Speaker II
10.00 – 10.45	Keynote Speaker III: Prof. Edi Meiyanto (President of ISCC/UGM)
10.45 - 11.00	QnA Speakr III
11.00 – 11.45	Keynote Speaker IV: Prof. Dr. Sanjay Jachak (NIPER India)
11.45 - 12.00	QnA Speaker IV
12.00 - 13.00	Lunch Break, Poster Session
13.00 – 15.00	BREAKROOM 1: Plenary session I: Scientific Jamu Assoc. Prof Mohd Razip, Asaruddin (Univesity Malaysia Sarawak) DR (cand.) dr. Ingrid Tania, M.Si. (UI) Assoc. Prof. apt. Dr. Yasmiwar (Unpad)  BREAKROOM II: Plenary session II: Drug delivery Assoc. Prof. Rathapon Asasutjarit, Ph.D (Thammasat University, Thailand) Dr. apt. Iyan Sopyan (Unpad) Khaled M. Elamin, Ph.D (Kumamoto University)
15.00 – 15.30	Break
15.30 – 16.00	Keynote Speaker V: Prof. dr. Maria Yazdanbakhsh (Universiteit Leiden, Belanda)
16.00 - 16.15	QnA Speaker V
16.15 – 17.00	Parallel session (Oral Presentation)

<b>Wednesday, 19 October 2022</b>	
<b>Time</b>	<b>Event</b>
08.00 - 08.45	Keynote Speaker VI: Prof. Taifo Mahmud (Oregon State University, Amerika)
08.45 - 09.00	QnA Speaker VI
09.00 - 09.45	Keynote Speaker VII : Prof. Jun-Ya Kato (NAIST-Jepang)*
09.45 - 10.00	QnA Speaker VII
10.00 - 11.00	Paralel Session (Pharmaceutical Technology of Cancer and Microbiology and Biotechnology)
11.00 – 12.00	Parallel Session
12.00 – 13.00	Lunch Break, Poster Session
13.00 - 15.00	<p><b>BREAKROOM 1:</b>  Plenary Session III : Pharmaceutical Technology of Cancer  Prof. Nasrul Wathoni (Unpad)  Thavasyappan Thambi, Ph.D. (Kyung Hee University, South Korea)  Dr. apt. Riris Istighfari Jennie (UGM)</p> <p><b>BREAKROOM II:</b>  Plenary Session IV : Microbiology and Biotechnology  Dr. apt. Tiana Milanda (Unpad)  Prof. Marlia Singgih (ITB)  Dr. Endang Purwantini (Virginia Polytechnic Institute and State University, Amerika)</p>
15.00 – 15.30	Break
15.30 – 16.30	Keynote Speaker VIII: Prof. Habibah A. Wahab (President of CADD Asia/Universiti Sains Malaysia)

<b>Thursday, 20 October 2022</b>	
<b>Time</b>	<b>Event</b>
08.00 - 09.00	Keynote Speaker IX : Dirjen Farmasi dan Alat Kesehatan (Dr. Dra. Lucia Rizka Andalusia, Apt, M.Pharm, MARS)*
09.00 - 09.45	Keynote Speaker X : Prof. Tao Liu (UNSW Australia.)
09.45 – 10.00	QnA Speaker X
10.00 – 12.00	BREAKROOM 1: Plenary Session V : Pharmaceutical Analysis Breakroom 1 : Dr. apt. Ida Musfiroh (Unpad) Dr. Mohamad Rafi, MSi (IPB) Dr. Ezatul Ezleen Kamrulzaman (USM)  BREAKROOM 2: Plenary Session VI: CADD Prof. Daryono Hadi Tjahyono (ITB) Dr. Sandra Megantara (UNPAD) Dr Suman Sinha (Tata Institute of Fundamental Research, Hyderabad, India)
12.00-13.00	Lunch Break dan preparation workshop dan annual meeting
13.00 - 17.00	Workshop dan annual meeting secara luring di Lab Workshop 1: Natural Ingredients for Make-up and Skin Care Hybrid Workshop 2: Microwave Syntesis (Maja Bintang) Workshop 3: Encapsulation process technology

## ORAL AND POSTER PRESENTATION SCHEDULE

### ORAL PRESENTATION

Day 1		
Breakout Room	Number	Presenter
D1-BR1	OP-039	Untung Gunawan
	OP-024	Riska Prasetiawati
	OP-047	Muthi Ikawati
	OP-029	Aiyi Asnawi
D1-BR2	OP-004	Indah Hairunisa
	OP-006	Nasri
	OP-007	Dhiya Ulhaq Salsabila
	OP-013	Vera Estefania Kaban
	OP-015	Ainun Rohmawati Bareta
D1-BR3	OP-017	Dr. apt. Yuliet, S.Si.M.Si.
	OP-018	NOVYANANDA SALMASFATTAH
	OP-021	Endah Puji Septisetyani
	OP-067	apt.Uce Lestari, S.Farm, M.Farm
D1-BR4	OP-002	Marissa Angelina
	OP-008	Ratih Kurnia Wardani
	OP-009	Nisa UI Hasanah
	OP-011	Ahmad Syauby Tafrihani
	OP-045	risna agustina
D1-BR5	OP-016	Nadzifa Nugraheni
	OP-027	Ummi Maryam Zulfin
	OP-042	Hanaan Emilia Adi Hastuti
	OP-043	Dewi Rahmawati
D1-BR6	OP-077	Tri Budi Julianti
	OP-078	Insan Sunan Kurniawansyah
	OP-061	Midori Rahmadhany Putri Adisusilo
	OP-066	Inggita Hasi Rahmah
	OP-068	Dyaningtyas Dewi Pamungkas Putri
D1-BR7	OP-001	Fitriani Jati Rahmania
	OP-003	Ayu Shabrina
	OP-037	Novriyanti Lubis
	OP-082	Tiwuk Susantiningasih
	OP-083	Marko Jeremia Kalalo

Day 2		
Breakout Room	Number	Presenter
D2-BR1	OP-031	Eva Susanty Simaremare
	OP-028	Yeni
	OP-036	Isti Daruwati
	OP-049	Desty Restia Rahmawati
D2-BR2	OP-034	Hesti Riasari
	OP-035	Afifah Kusuma Vardhani
	OP-040	SANTI PERAWATI
	OP-044	Christopher Filando Santoso
D2-BR3	OP-073	Dr. apt. Dewi Astriany, M.Si.
	OP-054	Satriyo Krisna Palguno
	OP-055	Wisnu Cahyo Prabowo
	OP-056	Rina Fajri Nuwarda

	OP-075	Rahma Ziska
D2-BR4	OP-046	Yuni Andriani
	OP-050	Yulia Ratna Dewi
	OP-051	Putri Anggreini
	OP-048	Erlia ANggrainy Sianipar
D2-BR5	OP-058	Emni Purwoningsih
	OP-012	Fathnur Sani K
	OP-041	rizky yulion putra
	OP-085	Husnawati
D2-BR6	OP-052	Siti Hairiah
	OP-053	Tasya
	OP-064	Andi Tenri Kawareng
	OP-079	Vina Maulidya
D2-BR7	OP-084	Andi Khomeini Takdir
	OP-071	Sukmawati. S
	OP-072	Assyifa Cindykia
	OP-074	Purwaniati
	OP-080	Teuku Baihaqi Septiady
	OP-081	Hanggara Arifian

## POSTER PRESENTATION

Day 1		
Room	Number	Presenter
1	PP-001	apt. Nining, M.Si.
	PP-002	Anisa Amalia
	PP-003	Garnadi Jafar
	PP-004	I Gusti Ngurah Jemmy Anton Prasetya
	PP-005	Vera Nurviana
	PP-006	Stella Natalia
	PP-007	TUBAGUS AKMAL
	PP-008	Lusi Nurdianti
	PP-009	Novia Permata Hapsari
	PP-010	rahmah elfiyani
	PP-011	Trian Nur'aripin
	PP-012	Ira Rahmiyani
	PP-013	Ade Yeni Aprillia
	PP-014	Deny Puriyani Azhary
	PP-015	Yenni Puspita Tanjung
	PP-016	Nyi Mekar Saptarini
	PP-017	Fith Khaira Nursal
2	PP-018	Fahrauk Faramayuda
	PP-019	Norisca Aliza Putriana
	PP-020	Gofarana Wilar
	PP-021	Norisca Aliza Putriana
	PP-022	Resmi Mustarichie
	PP-024	Sri Agung Fitri Kusuma
	PP-025	Rimadani Pratiwi
	PP-026	Rimadani Pratiwi
	PP-027	Winasih Rachmawati
	PP-028	Apt. Dr. Tina Rostinawati M.Si
	PP-029	Apt. Dr. Tina Rostinawati <a href="#">M.Si</a>

	PP-031	Diah Lia Aulifa
	PP-032	Sri Agung Fitri Kusuma
	PP-033	Sri Agung Fitri Kusuma
	PP-034	Arif Budiman
	PP-035	Arif Budiman
	PP-036	apt. Nur Rahayuningsih, M.Si
	PP-037	Himaniarwati
3	PP-038	Irma Erika Herawati
	PP-040	Raden Bayu Indradi
	PP-041	Lauren Pangestu
	PP-042	Aulia Nur Septiani
	PP-043	Nadiyah Adira Hanun
	PP-044	Ami Tjitraresmi
	PP-045	Ike Susanti
	PP-046	Endah Kartikawati
	PP-047	Marisa Dwi Ariani
	PP-048	Muhammad Ryan Radix Rahardhian
	PP-049	Danni Ramdhani
	PP-051	Intan Timur Maisyarah
	PP-052	Klarissa Nabila
	PP-053	Citra Rosyidah
	PP-054	Faaza Aulia Rahman
	PP-055	Gofarana Wilar
	PP-056	Ratna Asmah Susidarti
4	PP-057	Rohmanika
	PP-058	Ellin Febrina
	PP-059	Silviana Hasanuddin
	PP-060	Silviana Hasanuddin
	PP-061	Raden Maya Febriyanti
	PP-062	Ferry Ferdiansyah Sofian
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## FORMULATION OF SALBUTAMOL SULFATE ORALLY DISSOLVING FILMS WITH SODIUM STARCH GLYCOLATE AS A SUPER-DISINTEGRANT

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### ABSTRACT

Orally dissolving film (ODF) is a solid dosage form that dissolves immediately in the mouth. A super disintegrant was a substance affecting the film dosage form's dissolving capacity<sup>[1]</sup>. One of the super disintegrants in ODF is Sodium Starch Glycolate (SSG), which can expand 7–12 times in less than 30 seconds<sup>[2,3]</sup>. This study aimed to investigate the physical characteristics and dissolution of salbutamol sulphate from ODF utilizing pectin as a film-forming agent and SSG as a super-disintegrant at various concentrations. This study utilized SSG concentrations of 0% (F1), 1% (F2), 1.2% (F3), and 2% (F4). The film preparation method used in this study was the Solvent Casting Method, followed by an evaluation of ODF preparations that included organoleptic, pH, thickness, content uniformity, disintegration time, and dissolution test. The film was yellow, odourless, had a faint sour taste, was not sticky, had a pH of 6.03 - 6.7, a folding strength of 225 - 437 folds, content uniformity of 97.77 - 98.81%, and disintegrated in 28 to 75 seconds. Variations in SSG concentration impacted on the film's physical properties and dissolution ( $p < 0.05$ ), where the film rapidly disintegrated and dissolved with higher SSG concentrations.

Keywords: orally dissolving film, super disintegrants, sodium starch glycolate, physical characteristics, dissolution

### References:

1. Sevinç Özakar R, Özakar E. Current overview of oral thin films. *Turkish J Pharm Sci*. 2021;18(1):111–21.
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# The 5th International Seminar on Pharmaceutical Sciences and Technology (ISPST) and The 3rd International Seminar and Expo on Jamu (ISEJ) 2022 embedded in The 13th Annual Meeting ISCC

## Pharmaceutical Technology on Natural Medicines in Post Pandemic Recovery



# ABSTRACT BOOK



# FORMULATION OF SALBUTAMOL SULFATE ORALLY DISSOLVING FILMS WITH SODIUM STARCH GLYCOLATE AS A SUPER-DISINTEGRANT

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## Background & Objectives

Orally dissolving film (ODF) is a solid dosage form that dissolves immediately in the mouth

A super disintegrant was a substance affecting the film dosage form's dissolving capacity.

One of the super disintegrants in ODF is Sodium Starch Glycolate (SSG), which can expand 7–12 times in less than 30 seconds.

This study aimed to investigate the physical characteristics and dissolution of salbutamol sulphate from ODF utilizing pectin as a film-forming agent and SSG as a super-disintegrant at various concentrations.

## Method

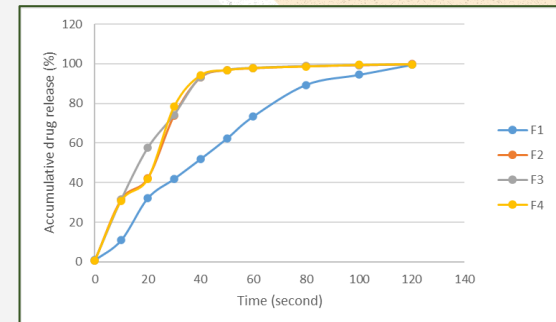
This study utilized SSG concentrations of 0% (F1), 1% (F2), 1.2% (F3), and 2% (F4).

Evaluation of ODF preparations: organoleptic, pH, thickness, content uniformity, disintegration time, and dissolution test.

The film preparation method used in this study was the Solvent Casting Method

## Results

The film was yellow, odourless, had a faint sour taste, was not sticky, had a pH of 6.03 - 6.7, a folding strength of 225 - 437 folds, content uniformity of 97.77 - 98.81%, and a time disintegrated of 28 - 75 seconds. Figure shows the results of the salbutamol sulfate ODF dissolution test.



## Conclusion

Physical characteristics and film dissolution were altered by SSG concentration variations ( $p < 0.05$ ).

The film disintegrates and dissolves rapidly with a higher SSG concentration.

## Reference

Sevinç Özakar R, Özakar E. Current overview of oral thin films. Turkish J Pharm Sci. 2021;18(1):111–21.

Parfati N, Rani KC, Meilany. The effect of coprocessed superdisintegrants ratio (Crospovidone-sodium starch glycolate) to the physicochemical characteristics of atenolol orally disintegrating tablets. Asian J Pharm Clin Res. 2018;11(2):318–24.

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PP-002

# FORMULATION OF SALBUTAMOL SULFATE ORALLY DISSOLVING FILMS WITH SODIUM STARCH GLYCOLATE AS A SUPER DISINTEGRATION

Anisa Amalia<sup>1</sup>, Nining Nining<sup>1\*</sup>, Sri Partwi<sup>1</sup>

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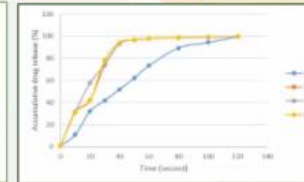
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## Background & Objectives

- Orally dissolving film (ODF) is a solid dosage form that dissolves immediately in the mouth
- A super disintegrant was a substance affecting the film dosage form's dissolving capacity.
- One of the super disintegrants in ODF is Sodium Starch Glycolate (SSG), which can expand 7-12 times in less than 30 seconds.
- This study aimed to investigate the physical characteristics and dissolution of salbutamol sulfate from ODF utilizing pectin as a film-forming agent and SSG as a superdisintegrant at various concentrations.

## Results

The film was yellow, odorless, had a faint sour taste, was not sticky, had a pH of 6.03 - 6.7, a folding strength of 225 - 437 folds, content uniformity of 97.77 - 98.81%, and a time disintegrated of 28 - 75 seconds. Figure shows the results of the salbutamol sulfate ODF dissolution test.



## Method



## Conclusion

Physical characteristics and film dissolution were altered by SSG concentration variations ( $p < 0.05$ ).

The film disintegrates and dissolves rapidly with a higher SSG concentration.

## Reference

Sevinç Özakar İ, Özakar E. Current overview of oral thin films. *Turkish J Pharm Sci.* 2021;18(1):111-21.

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Apeji YE, Zachariah PD, Anyebe SN, Tytler B, Okwosulu AK, Oyi AR. Effect of mode of superdisintegrant incorporation on tableting properties of metronidazole granules. *Pharm Sci Asia.* 2015;46(1):25-32.



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