



# VREDNOST INOVACIJ

THE VALUE OF  
INNOVATIONS



Strateška konferenca o vplivu inovativnosti na  
izboljšanje zdravja prebivalstva in na gospodarsko rast

Strategic conference on the impact of innovation on the  
improvement of public health and economic growth

OKTOBER  
OCTOBER 2012

# VEČ INOVACIJ, VEČ ZDRAVJA



## Farmacevtska industrija in njen prispevek družbi

### Prinaša odgovore na pričakovanja bolnikov:

Z uresničevanjem potreb zdravstva zagotavlja kakovostnejše zdravljenje in zdravstveno oskrbo.

### Daje dodano vrednost zdravstvenim sistemom:

Ponuja trajnostne rešitve pri načrtovanju zdravstvenih proračunov držav.

### Predstavlja strateško področje gospodarstva:

Investira v inovacije z zagotavljanjem visoko kvalificiranih delovnih mest in dotoka novih sredstev v gospodarstvo.

# MORE INNOVATION MEANS MORE HEALTH

## The Pharmaceutical Industry and Its Contribution to Society

### Responding to patients' expectations:

To provide better quality treatment and health care by fulfilling unmet health needs

### Bringing added value to health systems:

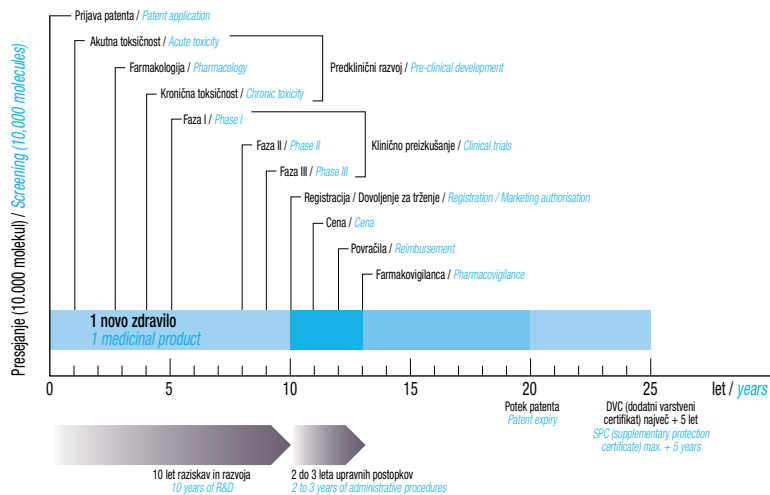
Sustainable solutions taking into account national health care budgets

### A strategic sector of the economy:

Investment in innovation by providing highly qualified jobs and flow of income for the economy.

### Stopnje razvoja novega zdravila

#### Phases of the research and development process

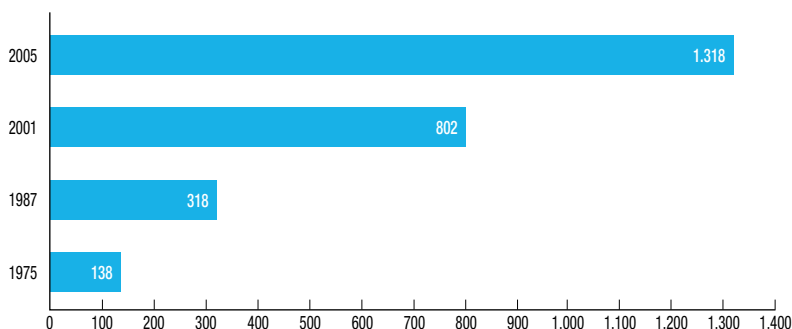


### Ocenjena vrednost vseh stroškov uvedbe novega zdravila na trg (v milijonih dolarjev, kot so bili vredni leta 2005)

#### Estimated full cost of bringing a new chemical or biological entity to market (\$ million - year 2005)

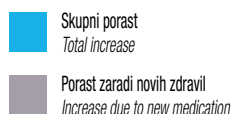
vir / source:

J.A. DiMasi and H.G. Grabowski, "The Cost of Biopharmaceutical R&D: Is Biotech Different?", Managerial and Decision Economics 28 (2007): 469-479



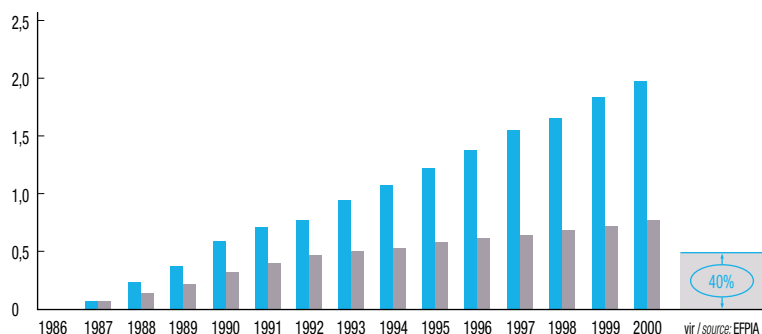
## Vpliv zdravil na življenjsko dobo

## Impact of medication in life expectancy



vir / source:  
The Impact of New Drug Launches on Longevity.  
Frank R. Lichtenberg, 2005

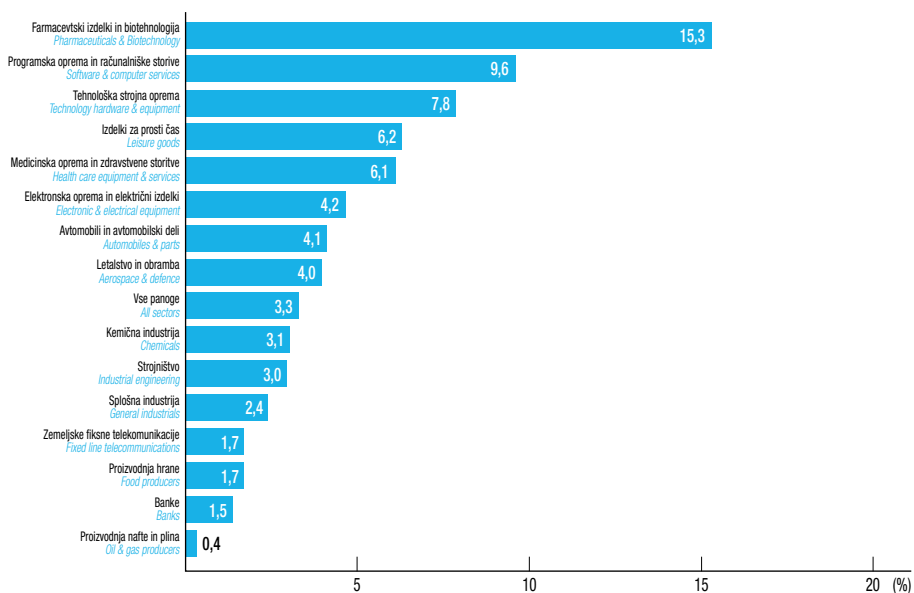
Število let / Number of years



### Razvrstitev industrijskih panog po intenzivnosti raziskav in razvoja (raziskave in razvoj kot odstotek neto prodaje v letu 2010)

#### Ranking of industrial sectors by overall sector R&D intensity (R&D as percentage of net sales - 2010)

vir / source:  
The 2011 EU Industrial R&D investment  
Scoreboard, European Commission.  
JRC/DG Research & Innovation



### Farmacevtska industrija v Sloveniji

- 91 milijonov evrov investicij v raziskave in razvoj
  - 11.500 zaposlenih
  - 1.696 milijonov evrov izvoza
  - 764 milijonov evrov uvoza
- podatki za leto 2010

Boljša kakovost življenja, ki se odraža v doseganju višje starosti, je predvsem posledica velikih znanstvenih dosežkov in medicinskih odkritij v zadnjem stoletju.

### Pharmaceutical industry in Slovenia

- €91 million investments through R&D
  - 11,500 people employed
  - €1,696 million exports
  - €764 million imports
- 2010 data

Achieving older age is a reflection of a better quality of life, which is mainly the result of great scientific and medical discoveries in the last century.



Richard Bergström

Prof. dr. Frank Lichtenberg



## Vrednost inovacij

15. oktobra 2012 je v organizaciji Mednarodnega foruma znanstveno-raziskovalnih farmacevtskih družb v sodelovanju z AmCham Slovenia potekala strateška konferenca Vrednost inovacij, ki predstavlja pomemben prispevek k razumevanju doprinosa farmacevtskih inovacij k podaljševanju življenjske dobe in izboljšanju kakovosti življenja, pa tudi k družbeni blaginji in gospodarski rasti. Konferenca je osvetlila trende razvoja evropskih zdravstvenih sistemov ter soočila mnenja o inovacijah s strani bolnikov, plačnika zdravstvenih storitev in akademske sfere.

Na strateški konferenci o vplivu inovacij na izboljšanje javnega zdravja in gospodarske rasti se je zbralo okoli sto sodelujočih, ključnih deležnikov na področju zdravstvenega varstva. Ključni govorniki so bili: prof. dr. Frank Lichtenberg, strokovnjak na področju pomembnosti inovativnih medicinskih proizvodov za družbo z Univerze Columbia v ZDA, Richard Bergström, generalni direktor Evropske federacije farmacevtske industrije in združenji (EFPIA) ter prof. dr. Dušan Mramor, dekan Ekonomske fakultete in predsednik upravnega odbora Univerze v Ljubljani.

## The Value of Innovations

*On October 15th, 2012, a strategic conference titled "Value of Innovations" took place, organized by the Forum of International Research & Development Pharmaceutical Companies in co-operation with AmCham Slovenia. The Value of Innovations conference represents an important contribution to the understanding of the impact of pharmaceutical innovation on the increased longevity and quality of life, as well as to the welfare of society and its economic growth. The conference shed light on the trends of development of European health care systems and confronted opinions on innovations from the points of view of patients, national health services and academic circles.*

*The strategic conference on the impact of innovation on the improvement of public health and economic growth brought together some 100 participants, key stakeholders in health care. The keynote speakers were Prof. Frank Lichtenberg, PhD, an expert in the field of the significance of innovative medicinal products for society from Columbia University, USA; Richard Bergström, General Manager of the European Federation of Pharmaceutical Industries and Associations (EFPIA); Prof. Dušan Mramor, PhD, the Dean of Faculty of Economics, University of Ljubljana and the Chairman of the Board of University of Ljubljana.*



Prof. dr. Dušan Mramor

Samo Fakin

Ključni predavatelji so poudarili:

- koristi zdravljenja z novimi zdravili močno presegajo njihove stroške,
- bolniki, zdravljeni z novimi zdravili, živijo dlje,
- farmacevtska industrija je ključnega pomena za evropsko gospodarstvo.

Samo Fakin, generalni direktor Zavoda za zdravstveno zavarovanje Slovenije (ZZS), prof. Jože Faganel, predsednik Društva hemofilikov Slovenije, tudi sam hemofilik, in prof. dr. Zlatko Fras, strokovni direktor Interne klinike UKC Ljubljana so se pridružili na okrogli mizi.

V razpravi je bilo jasno poudarjeno, da farmacevtske inovacije ter uvedba in uporaba novih zdravil podaljšujejo življenjsko dobo, zmanjšujejo uporabo drugih zdravstvenih storitev, še posebej v bolnišnicah in domovih za ostarele ter povečujejo kakovost življenja in zmožnost za delo.

*The keynote speakers emphasized:*

- *The benefits of treatments with new drugs far outweigh the costs.*
- *Patients using newer drugs live longer.*
- *The pharmaceutical industry is a key asset to the European economy.*

*Samo Fakin, Director General of the Health Insurance Institute of Slovenia, Prof. Jože Faganel, the President of the Slovenian Hemophilia Society and a hemophiliac himself, and Prof. Zlatko Fras, PhD, Medical Director of the Internal Clinic of University Medical Center Ljubljana joined the roundtable.*

*How pharmacological innovation and introduction and the use of new drugs increase longevity, reduce the use of other medical services, especially hospitals and nursing homes, increase quality of life and ability to work were clearly emphasized.*



Katarina Verhnjak, članica uprave / Board Member



Barbara Stegel, generalna sekretarka Foruma / Secretary General



## Pomen inovacij v zdravstveni oskrbi

Znotraj zdravstvenih sistemov Evrope in sveta se srečujejo na eni strani naraščajoča pričakovanja državljanov po odlični in nediskriminatorni zdravstveni obravnavi, ki vključuje najboljše, najnovejše in najučinkovitejše zdravstvene rešitve, ter na drugi strani ekonomska recesija in naraščajoče finančne omejitve zdravstvenih proračunov.

Zadrego, ki je skupna skoraj vsem evropskim ekonomijam, rešujejo države na dva načina in tudi oblikujejo dve različni strategiji zdravstvenih reform. Bodisi dolgoročno in »proaktivno« z osredotočanjem na učinkovitost zdravstvenih rešitev in s tem alokacijo sredstev v rešitve z visoko dodano in dokazano vrednostjo, bodisi kratkoročno in »reaktivno« z izključnim osredotočanjem na zmanjševanje stroškov.

Na zaostrovanje ekonomskih razmer je torej možno reagirati različno, z različnim pogledom na časovni, ekonomski in razvojni prostor posamezne države in evropske skupnosti. Kakšna reformna, časovna in razvojna merila smo si postavili v Sloveniji? Kako nam bodo določila mesto na zemljevidu zdravstveno dobro oskrbljene in posledično delovno učinkovite ter zadovoljne evropske populacije? Se usmerjamo k odkrivanju in uporabi dodane vrednosti ali zgolj k umiku v varčevanje brez jasnega pregleda nad dolgoročnimi posledicami?

Skupaj s sogovorniki na Forumovi konferenci »Vrednost inovacij« skušamo svoj glas, glas inovativne farmacevtske industrije, podati tudi članice Foruma, ki

## The Importance of Innovations in Health Care

*European and global health care systems are faced with growing expectations of citizens regarding excellent and equal medical treatment, which includes the best, newest and most effective treatment solutions. At the same time, health care systems are facing the global economic recession and the growing financial restrictions of health care budgets.*

*The quandary, which is common to almost every European economy, is being solved by countries in two ways and they form two different strategies of health care reforms, accordingly. A strategy can be long-term and proactive, focused on the efficiency of health care solutions and with it on the allocation of resources to high added and proved value. Or it can be short-term and reactive, focused solely on cost reduction.*

*It is therefore possible to react to harsh economic conditions in different ways, with different views on the temporal, economic and developmental environment of any separate country and the European community. What are the reforms, and the time and development criteria that we have set up in Slovenia? Where on the map of medically well-provided and therefore work-efficient and satisfied European people will they place us? Are we focusing on identifying and applying added value, or merely on withdrawing into savings without a clear view of long-term consequences?*

*Members of the Forum, focusing on the demonstrated and provable added value of innovative drugs, would like to present the viewpoints of professionals*



fokus usmerjamo k dokazani in dokazljivi dodani vrednosti inovativnih zdravil. Občutno podaljšana življenjska doba, kakovostno preživet delovni in prosti čas kroničnih bolnikov, ki jih je v Sloveniji preko 200.000, že samoumevno načrtovanje rojstev ter kar najvišja možna stopnja preživetja novorojenčkov, normalen potek delovnega in prazničnega dne bolnikov z redkimi boleznimi, normalna pričakovana življenjska doba okuženih z virusom HIV, podaljšana pričakovana življenjska doba rakavih bolnikov, zmanjšanje umrljivosti tistih, ki jih pestijo bolezni srca in ožilja, so le nekateri dovolj natančno merljivi in izmerjeni parametri, ki govorijo v prid inovacijam v zdravstvu in v prid dolgoročni izbiri zdravil z visoko dodano vrednostjo.

Blaginja, ki jo prinaša zdravje, oboje pa spodbujata predvsem zdravstvena preventiva in inovacije, naj bo sprejeta kot dolgoročna, zavestna in skrbno načrtovana investicija v razvoj družbe kot celote, v kakovost življenja nas vseh, kot zaveza optimiziranja in tudi zmanjševanja dolgoročnih stroškov, katerih rast lahko spodbudi uporaba neustreznih in nezadostnih zdravstvenih rešitev. Naš sogovornik na konferenci, profesor Lichtenberg, s svojo študijo dokazuje, da je izboljšanje zdravja prebivalstva poglavitni parameter izboljšanja blaginje in bogastva celotne družbe – v numeričnih in dokazljivih merilih.

Za izboljšanje zdravja in blaginje na lokalnem nivoju in z željo, da bi dosegli dolgoročne cilje na področju zdravstva in kakovostne zdravstvene oskrbe, predlagamo oblikovanje partnerstva med vsemi deležniki v zdravstvu, ki bi

*researching this topic, with the opinions of other speakers at the Value of Innovations conference. A significantly longer life span, the ability of chronic patients to spend quality working and free time (of whom there are over 200,000 in Slovenia), birth planning, the highest possible new-born survival rate, the ability of patients suffering from rare diseases to spend their work days and holidays normally, normal life expectancy of HIV patients, extended life expectancy of cancer patients, reduced mortality of cardio-vascular patients — these are only some of the accurately measurable and measured parameters that speak in favor of health care innovations and the selection of high added-value drugs over long term.*

*The well-being resulting from health, while mainly promoted by both medical prevention and innovations, should be acknowledged as a long-term, conscious and carefully planned investment in the development of a society as a whole, in the quality of life of us all, as a commitment to optimize and also to reduce long-term costs whose increase may be driven by the use of inadequate and insufficient medical solutions. Professor Lichtenberg, a speaker at the conference, has proven that improving people's health is the number one parameter of improving the well-being and wealth of the entire society, according to numeric and demonstrable criteria.*

*With the aim of improving health and well-being at the local level, and aspiring to achieve long-term goals in health care and quality medical care, we propose a partnership between all health care stakeholders — a partnership between*

potekalo na več ravneh in bi nam omogočilo usklajen pristop k naslednjim izzivom:

- Vsi deležniki v zdravstvu potrebujemo jasno in izvršljivo nacionalno strategijo na področju zdravstvenega varstva ter dolgoročno nacionalno politiko za področje zdravil 2012–2017, pri čemer so Forum in njegove članice pripravljene dejavno sodelovati.
- Spremembi sistema financiranja zdravstva, saj bi financiranje iz zasebnih sredstev preko različnih oblik zasebnih programov zdravstvenega zavarovanja ali preko uvedbe sistema participacije pripomoglo k okrepitvi vzdržnosti in razvoja zdravstvenega varstva visoke kakovosti za slovenske državljane ter omogočilo nadaljnjo dostopnost inovativnih zdravil.
- Pravočasno prepoznavanje in način dokazovanja dodane vrednosti inovacij v zdravstvu z namenom doseganja kar najvišjega nivoja kakovosti zdravstvene oskrbe državljanov ter s tem blaginje celotne družbe.

Zdravstvene odločevalce spodbujamo, da pristopijo k nacionalni strategiji za zdravo družbo, ki bo tlakovala pot finančno vzdržnemu in učinkovitemu zdravstvenemu sistemu, ki bi zagotavljal pravočasen in enakovreden dostop do inovativnih zdravil vsem bolnikom.

V prizadevanju, da bi vsem državljanom omogočili dostop do visokokakovostnih informacij o inovativnih zdravilih in možnostih zdravljenja, Forum predlaga ustanovitev delovne skupine za promocijo zdravja in inovativnega zdravljenja bolezni sodobnega časa. K sodelovanju želimo pritegniti Ministrstvo za zdravje, Zavod za zdravstveno zavarovanje Slovenije, Javno agencijo za zdravila in medicinske pripomočke, Združenje javnih zdravstvenih zavodov, stanovske zdravniške in farmacevtske organizacije, organizacije bolnikov in druge skupine in posameznike, ki se zavedajo pomena verodostojnih informacij pri ohranjanju zdravja in zdravljenju bolezni sodobnega časa.

Sodelovanja pri sedanjih in prihodnjih izzivih in rešitvah, ki jih zahteva razvoj učinkovitega in visokokakovostnega zdravstvenega sistema se veselimo in kot popotnico vanj ponujamo naše znanje, našo pripravljenost na nova učenja in inovativne rešitve našega znanstveno raziskovalnega dela.

**Uprava Foruma**

*various levels that would enable a concerted approach to the following challenges:*

- *All health care stakeholders need a transparent and feasible national health care strategy as well as a long-term national policy on drugs for 2012–2017, with which the Forum and its members are willing to actively contribute.*
- *Changing of the health care funding system, since private funding through various private health care insurance programs or the introduction of a participation system would help reinforce the sustainability and the development of high-quality health care for Slovenian citizens, and provide continued accessibility of innovative drugs.*
- *Identifying added value in due time and demonstrating such value in health care so as to provide the best possible medical care to citizens and thus the well-being of the society as a whole.*

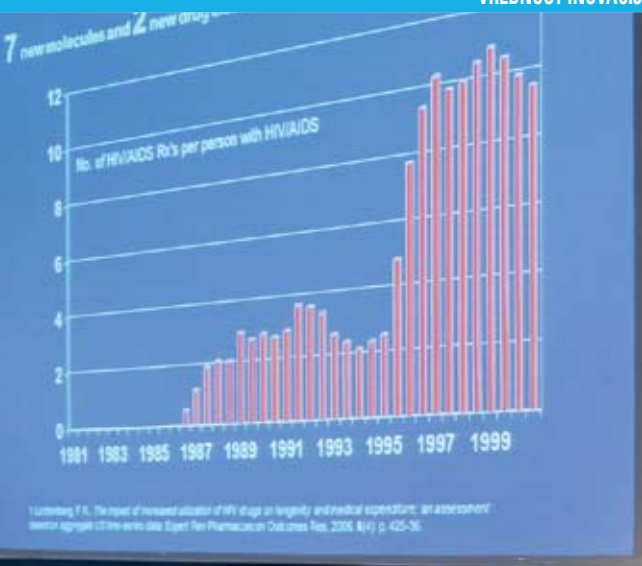
*The Forum encourages Slovenian health policy-makers to commence a national strategy for a healthy society that will pave the way to a financially sustainable, stable, predictable, competitive and effective health care system in which innovative drugs would be timely and equally available to all patients.*

*The Forum is constantly striving to enable all Slovenian people access to high-quality information about innovative therapeutic solutions and medicinal products. For this purpose, the Forum proposes establishing a working group of stakeholders that is going to promote health and innovative therapies of modern diseases for a healthy society. All stakeholders in health care are most welcome to join the project: the Ministry of Health, the Health Insurance Institute of Slovenia, the Agency for Drugs and Medical Devices, the Association of Health Institutions of Slovenia, professional medical and pharmaceutical organizations, patient organizations and other groups and individuals. The Forum welcomes cooperation with everyone aware of the importance of genuine information on maintaining good health and providing contemporary treatment of modern global diseases.*

*We are looking forward to seeking a common solution in the existing and future challenges and solutions necessary for the development of an efficient high-quality health care system; in support of this, we offer our knowledge, and our willingness to learn and provide innovative solutions stemming from our scientific research.*

**Management Board  
of the Forum**





Prof. dr. Frank Lichtenberg



## Uvedba in uporaba novih zdravil podaljša življenjsko dobo in poveča kakovost življenja

**Prof. dr. Frank Lichtenberg**, profesor na Fakulteti za poslovne vede Univerze Columbia v ZDA in strokovni sodelavec Nacionalnega urada za ekonomske raziskave.

Profesor Lichtenberg je spregovoril o svojih raziskavah o vplivu farmacevtskih inovacij na zdravje, ki se jim posveča zadnjih 15 do 20 let.

Podatki o pričakovani življenjski dobi ob rojstvu v ZDA kažejo, da se je življenjska doba v zadnjih 50 letih močno podaljšala. Podaljšanje življenjske dobe beležimo tudi v obdobjih, kot je zadnje desetletje, ko se je BDP na prebivalca komaj kaj povečal, obenem pa so se povečevali dejavniki tveganja za zdravje. Velik delež podaljšanja življenjske dobe v zadnjih desetletjih so namreč omogočile inovacije v medicini, ki so rezultat intenzivnih raziskav v farmaciji in industriji medicinskih pripomočkov. Tehnološki napredek pa je gibalo gospodarske rasti.

### Koristi inovativnih zdravil večkratno odtehtajo njihove stroške

Ekonomisti vedno bolj spoznavajo, da je za merjenje in ustvarjanje gospodarske rasti pomembna ne le rast BDP-ja, ampak v veliki meri tudi podaljšanje življenjske dobe. Na izdatke za nova zdravila zato ne smemo gledati ozko, pač pa moramo imeti v mislih celoten proračun za zdravstveno varstvo.

## Introduction and Use of New Drugs Increases Longevity and Quality of Life

**Prof. Frank Lichtenberg**, PhD, Professor of Business at the Columbia University Graduate School of Business, USA and a Research Associate of the National Bureau of Economic Research.

Professor Lichtenberg presented some results of the research that he has been engaged in for the past 15 to 20 years on the impact of pharmaceutical innovation on health.

Data about U.S. life expectancy at birth show that life expectancy has increased substantially over the past 50 years. The rise of life expectancy can be seen even during periods like the previous decade when per capita GDP has barely increased and some health risk factors have been increasing. A substantial part of longevity growth in recent decades has been achieved due to medical innovation. The medical substances and devices industries are by far the most research intensive industries in the economy. Economic growth is primarily driven by technological progress.

### The benefits of treatment with new drugs far outweigh the costs

Economists increasingly recognize that (together with GDP growth) longevity growth is a very important part of economic growth. We should not think about pharmaceutical expenditure in isolation; we need to think about the overall health care budget.

Farmacevtske inovacije, uvedba in uporaba novih zdravil imajo naslednje koristne učinke:

- podaljšajo življenjsko dobo,
- zmanjšajo porabo drugih zdravstvenih storitev, še posebej bolnišnic in domov za ostarele,
- povečajo kakovost življenja,
- povečajo zmožnost za delo.

### Bolniki, ki uporabljajo novejša zdravila, živijo dlje

Zdravje in življenjska doba populacije sta odvisna od tega, kako tehnološko napredne medicinske izdelke (vključujoč zdravila) in storitve uporabljajo njeni člani. Kako tehnološko napreden je medicinski izdelek ali storitev, pa je nadalje odvisno od njegove starosti, ki jo definiramo z letom izuma ali prve uporabe.

Analiza na ravni bolnika z opazovanjem življenjske dobe ameriških starostnikov je pokazala, da so bolniki, ki so uporabljali novejša zdravila, živeli dlje od bolnikov, ki so uživali starejša zdravila. Farmacevtske inovacije pomembno vplivajo na podaljšanje življenjske dobe. Tudi študija, osnovana na podatkih nemške populacije, ob uporabi drugačne metodologije potrjuje tem izsledkom.

*Pharmacological innovation — the introduction and use of new drugs — have the following favorable effects:*

- Increased longevity,
- Reduced use of other medical services, especially hospitals and nursing homes,
- Increased quality of life, and
- Increased ability to work.

### Patients using newer drugs live longer

*The health and longevity of a population depends on how technologically advanced the medical goods (including drugs) and services its members use are. How technologically advanced a medical good or service is also depends on its vintage, defined as its year of invention or first use.*

*Patient-level analysis of the longevity of elderly Americans showed that patients using newer drugs had a longer time before death than patients using older drugs. Pharmaceutical innovation accounts for a significant amount of longevity growth. A study using data from the German population also confirmed the findings using a different methodology.*

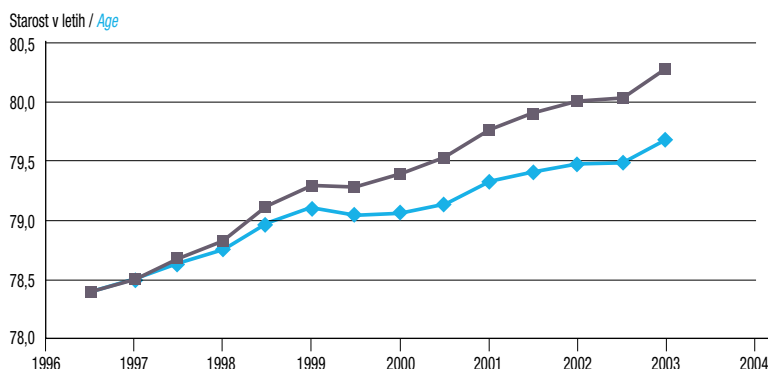
**Porast življenjske dobe (povprečne starosti ob smrti): dejanska v primerjavi s tisto brez farmacevtskih inovacij**

*Increase in mean age of death: actual vs. without pharma. innovation*

- Dejanska / Actual
- Brez inovacij / No innovation

Farmacevtske inovacije so prispevale skoraj tretjino (31,6%) k porastu povprečne starosti ob smrti za 1,88 leta v obdobju 1997 do 2010

*Pharmaceutical innovation accounts for almost 1/3 (31,6%) of the 1,88-year increase in mean age at death during the period 1997-2010*



Študija na ravni držav je pokazala, da so bile spremembe pričakovane življenjske dobe ob rojstvu med državami odvisne od sprememb v starosti zdravil. Življenjska doba in stopnja preživetja sta se hitreje večali v državah s hitrejšim in obsežnejšim uvajanjem novih zdravil. Rezultati so pokazali, da je podaljšanje pričakovane življenjske dobe ob rojstvu zaradi povečanja deleža uporabljenih novih zdravil znašalo do 73 odstotkov dejanskega povečanja pričakovane življenjske dobe ob rojstvu. Razlika v življenjski dobi med skupinami držav z največjo in najmanjšo uporabo novih zdravil je bila v 37 odstotkih pripisana razliki v dostopnosti do novih zdravil.

### Nova zdravila so več kot opravičila svojo ceno

Razvoj kemoterapije je v veliki meri prispeval k močnemu povečanju stopnje preživetja rakavih bolni v zadnjih 30 letih. Inovacije v kemoterapiji so v do 74 odstotkih prispevale k povečanju enoletnega preživetja raka.

Veliko inovativnih zdravil proti HIV, ki so bila uvedena v sredini devetdesetih let, je dramatično znižalo potrebo po bolnišničnem zdravljenju bolnikov z AIDS-om. Zmanjšanje uporabe bolnišničnih storitev je izravnalo stroške približno ene

*A country-level study showed that the change in longevity among countries depended on the change in drug vintage. Life expectancy and survival rates increased faster in countries with larger decreases in drug vintage. The results showed that the increase in life expectancy at birth due to the increase in the fraction of new drugs used amounted to 73% of the actual increase in life expectancy at birth. The difference in life expectancy between groups of countries with the most and least use of new drugs was attributed to differential access to new drugs in 37% of cases.*

### New drugs more than justified their expense

*The development of chemotherapy to a great extent accounts for the sharp increase in the cancer survival rate over the previous 30 years. Chemotherapy innovation contributed 74% to the increase in the 1-year cancer survival.*

*The great number of innovative HIV drugs introduced in the mid-1990s dramatically decreased the needs for the hospitalization of patients with AIDS. The reduction of hospital use offset approximately one half of the cost of the*

polovice stroškov zdravil. Ko torej razmišljamo, kako draga so zdravila, moramo ob dvigu stroškov zdravil upoštevati zmanjšanje stroškov bolnišničnega zdravljenja. To velja tudi pri srčno-žilnih boleznih. Uporaba novih srčno-žilnih zdravil pomeni nižje stopnje umrljivosti in zmanjšanje stroškov. Njihova uporaba je zmanjšala potrebo po bolnišničnem zdravljenju, povprečno trajanje takšnega zdravljenja in stopnjo srčno-žilne umrljivosti. Raziskave profesorja Lichtenberga so pokazale, da je bilo znižanje izdatkov za bolnišnično zdravljenje srčno-žilnih obolenj 3,7-krat večje od povečanja izdatkov za nova srčno-žilna zdravila.

drugs. Therefore, when we think about how expensive these drugs are, we should consider the reduction in hospital costs alongside the increase in drug costs. This also applies to cardiovascular diseases (CVD). The use of newer CVD drugs implies lower mortality rates and reduced costs. Their use has reduced hospitalization, the average length of stay and the cardiovascular mortality rate. Professor Lichtenberg's research showed that the decrease in expenditure on cardiovascular hospital stays was about 3.7 times as large as the increase for new cardiovascular drugs.

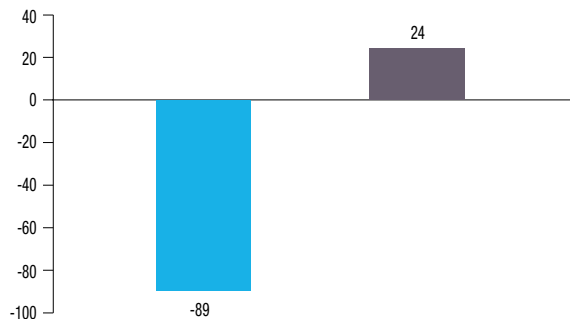
**Stroškovna učinkovitost novih zdravil za bolezni srca in žilja**

*Cost efficiency of new cardiovascular drugs*

- Izdatki za nova zdravila / Costs of new drugs
- Stroški bolnišničnega zdravljenja / Costs of hospitalization

Zmanjšanje stroškov bolnišničnega zdravljenja srčno-žilnih boleznij je približno 3,7-krat večje od porasta izdatkov za nova zdravila za srčno-žilne bolezni.

*The decrease in expenditure on cardiovascular hospital stays is about 3.7 times as large as in per capita increase for cardiovascular drugs.*



Pri preučevanju vpliva novih zdravil za pogosta obolenja na zmožnost za delo so raziskave pokazale, da je pri obolenjih, pri katerih je bilo največ inovacij, prišlo do največjega zmanjšanja nezmožnosti za delo.

*When examining the impact of new drugs for common diseases on the ability to work, the research showed that medical conditions for which there was the greatest amount of innovation saw the greatest reductions in the inability to work.*

Nezmožnost za delo, omejena zmožnost za delo, verjetnost potrebe po bolnišnični oskrbi in število izgubljenih delovnih dni oziroma ur ter število dni z omejitvijo aktivnosti so vsi v obratnem sorazmerju z deležem novejših zdravil, odobrenih pred 3 do 5 leti.

*The probability of being unable to work, limited in work, and having ever been hospitalized, and the number of work-loss days and restricted-activity days, are all inversely related to the stock of newer drugs approved 3 to 5 years earlier.*

Farmacevtske inovacije so zmanjšale tudi rast nadomestil za socialno varnost. Stopnja sprejema v programe socialnega varstva je bila v obratnem sorazmerju z uvedbo novih zdravil.

*Pharmaceutical innovation has also reduced Social Security Disability growth. The rate of enrollment in the disability program was inversely related to the rate of adoption of new drugs.*

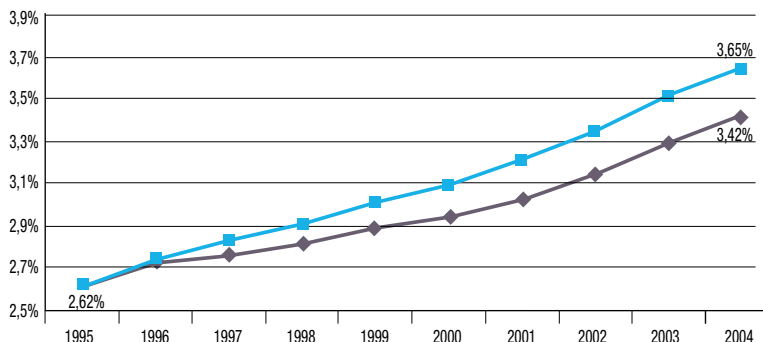
**Pričakovana invalidnost v letu t (t=1996, ..., 2004) ob odsotnosti uvedbe novih zdravil po letu 1995**

*Predicted disability rate in year t (t=1996, ..., 2004) in the absence of any post 1995 increase in drug vintage*

- Dejansko / Actual
- Pričakovano / Predicted

Če ne bi bilo uvedbe novih zdravil po letu 1995, bi bilo med Američani v delovni dobi približno 418.000 več prejemnikov invalidnine, izplačilo socialnih prejemkov invalidnim delavcem v letu 2004 pa bi bilo za približno 4,5 milijarde dolarjev višje.

*In the absence of any post-1995 increase in drug vintage, about 418,000 more working-age Americans would have been DI recipients, and Social Security benefits paid to disabled workers in 2004 would have been about \$4.5 billion higher.*



Ocenjene koristi novih zdravil, merjene z vrednostjo povečanja števila delovnih ur, so skoraj devetkrat večje od ocenjenih stroškov novih zdravil. Ponovno se izkaže, da zdravila in inovacije povsem upravičijo svoj izdatek.

*The estimated benefit of new drugs, in terms of the value of the increase in workforce participation and hours, is almost nine times as great as the estimated cost of new drugs. Again, the drugs and innovation were well worth the expense.*



Prof. dr. Dušan Mramor



## Z izobraževanjem in raziskavami do inovacij, z inovacijami do gospodarske rasti

**Prof. dr. Dušan Mramor**, dekan in redni profesor financ Ekonomske fakultete Univerze v Ljubljani ter predsednik upravnega odbora Univerze v Ljubljani.

Profesor Mramor je spregovoril o inovacijah, gospodarski rasti in njihovi povezavi s farmacevtskim sektorjem v luči trenutnega stanja v Sloveniji.

Farmacevtske inovacije prinašajo številne pozitivne učinke, kot so podaljšanje življenjske dobe, manj invalidnosti, večja kakovost življenja na starost, hitrejše okrevanje po bolezni in lažji bolezenski potek, zmanjšanje skupnih zdravstvenih stroškov in še in še.

### Farmacevtske inovacije prinašajo družbene izzive

S farmacevtskimi inovacijami se pojavijo tudi resni družbeni izzivi: povečanje deleža neaktivne populacije, povečanje bremena aktivne populacije in eksponentno povečanje stroškov staranja za družbo.

Z vidika proizvodne funkcije bruto družbeni proizvod (BDP) določajo naslednji dejavniki:

- Velikost delovne sile, ki se bo močno skrčila s staranjem populacije v prihajajočih desetletjih. Velikost delovne sile lahko povečamo z višjo upokojitveno starostjo in zgodnejšim vstopom na trg dela.

## From Education and Research to Innovation From Innovation to GDP Growth

**Prof. Dušan Mramor**, PhD, Dean and Full Professor of Finance at the Faculty of Economics, University of Ljubljana and the Chairman of the Board of University of Ljubljana.

Professor Mramor discussed the relation and impact of innovation and economic growth on the pharmaceutical sector with respect to current situation in Slovenia.

Pharmaceutical innovation has numerous positive effects, such as longer life expectancy, lower disability, higher quality of old age, shortened period of illness, lower strain during illness, lower overall medical costs and more.

### Pharmaceutical innovation challenges the society

The impact of pharmaceutical innovation on increased longevity also increases the challenges for society: the increased share of the inactive population, increased burdens on the active population and the exponential increases of old age costs for society.

From the production function point of view, gross domestic product (GDP) consists of the following factors:

- Labor size, which will shrink considerably with the population becoming older in the coming decades. Labor size can be increased with higher

- Velikost kapitala, ki ga določajo stopnja varčevanja in tuje neposredne naložbe.
- Skupna faktorska produktivnost.

Velikost delovne sile in kapitala sta navzgor omejeni. Tako je za aktivno populacijo edina rešitev, da postane veliko bolj produktivna. In inovacije so ključ za doseg tega cilja. Inovacije so v pozitivnem sorazmerju z rastjo BDP. Inovacije in skupno faktorsko produktivnost določata tehnološka rast in rast učinkovitosti.

## Z izobraževanjem in raziskavami do inovacij

Najpomembnejši dejavniki inovacij so izobraževanje, raziskave in razvoj.

- Izobraževanje mora biti ustrezno financirano. Slovenija je dosegla stopnjo razvitih držav, zato moramo dati prednost terciarnemu izobraževanju. Izobraževanje mora biti učinkovito, kar lahko dosežemo s sposobnimi in zagnanimi študenti, ki bodo učinkovito izrabili študijski čas.
- Raziskave in razvoj (R&R): Potrebujemo več investicij v raziskave in razvoj na zasebni in javni ravni. Pomembno je ustrezno ravnovesje med bazičnimi in uporabnimi raziskavami. Da bi ga dosegli, potrebujemo več bazičnih raziskav. Potrebujemo tudi ustrezno ravnovesje med univerzitetnimi in podjetniškimi raziskavami. Doseči moramo boljši prenos rezultatov raziskav z univerz v podjetja.

Da bi nadomestili negativen učinek zmanjševanja delovne sile, je potrebno povečati učinkovitost izrabe kapitala in delovne sile. Zato potrebujemo inovacije, ključ do inovacij pa sta izobraževanje in R&R.

Glavni »dolžnosti« farmaceutskega sektorja v povezavi s tem sta:

- Povečanje velikosti delovne sile. Farmaceutska industrija to dosega s skrajševanjem trajanja boleznih študentov in učencev ter s podaljševanjem sposobnosti starejših za delo.
- Povečanje učinkovitosti delovne sile. Doseči ga je mogoče z inovacijami pri zdravljenju boleznih otrok in kot rezultat skrajšanja trajanja boleznih ter povečanja zmoglosti za delo obolelih.

## Težave Slovenije v povezavi z dejavniki BDP

- Velikost delovne sile: Upokojitvena starost je med najnižjimi v EU. Nasprotno je starost vstopa na trg delovne sile med najvišjimi.
- Velikost kapitala: Stopnja varčevanja upada. Odvrčamo tuje neposredne naložbe.
- Skupna faktorska produktivnost in inovacije:
  - Izobraževanje: Financiranje se zmanjšuje pod povprečje EU in OECD. Med gospodarsko krizo ga je doletelo drugo največje zmanjšanje financiranja med vsemi javnimi izdatki. Prednost dajemo primarnemu izobraževanju. Terciarno izobraževanje je izrazito podfinancirano na študenta. Imamo največji delež generacije v EU, ki je vključena v terciarno izobraževanje; uspešno ga zaključi manj kot polovica študentov. Povprečno trajanje študija do diplome je pri nas najdaljše. Ob presahnjenih virih je učinkovitost študija zmanjšana.
  - R&R: R&R je doletelo največje zmanjšanje financiranja med gospodarsko krizo izmed vseh javnih izdatkov. Izčrpanje virov za univerzitetne raziskave in razpršenost javno financiranih raziskav sta močno zmanjšala bazične raziskave, porušeno je bilo ravnovesje z uporabnimi raziskavami. Tudi ravnovesje med univerzitetnim in podjetniškim R&R se je z upadom univerzitetnih raziskav porušilo. To je vodilo v neučinkovitost, kajti podjetja so bila prisiljena sama izvajati raziskave in zato trošiti dragocene vire. Prenos rezultatov raziskav na podjetja s pomočjo inkubatorjev in tehnoloških centrov se izboljšuje, vendar zaradi pomanjkanja bazičnih raziskav prav tako ni v ravnovesju.

*retirement ages and earlier labor market entry.*

- *Capital size, determined by savings rate and foreign direct investment (FDI).*
- *Total factor productivity.*

*Labor size and capital size are essentially limited upward. Thus the only solution is for the active population to become much more productive. Innovation is the key to achieving this goal. Innovation is positively correlated with GDP growth. Innovation and total factor productivity are determined by technology growth and efficiency growth.*

## Education and research brings innovation

*The most important factors of innovation are education, research and development.*

- *Education: It has to be appropriately funded. Priority has to shift to tertiary education with Slovenia achieving the level of developed countries. Education has to be efficient; this can be accomplished by an able and willing cohort of students efficiently using their time.*
- *Research and development (R&D): higher investment in public and private R&D is needed. There has to be appropriate balance of basic and applied research, and to achieve this we must have more basic research. We need an appropriate balance of university and corporate R&D. We need to achieve better transfers of research results from universities to business.*

*To offset the negative effect of shrinking labor, one has to increase efficiency of use of capital and labor. To do this, we need innovation and the keys for innovation are education and R&D.*

*The primary pharmaceutical sector "duties" in this respect are:*

- *To increase the size of labor. The pharmaceutical industry achieves this through reducing the illness time of students and pupils and prolonging the ability of older people to work.*
- *To increase the efficiency of labor. This can be achieved with innovations in the medical treatment of children and as a result of reduced illness time and an increased ability to work during illness.*

## Problems of Slovenia regarding the GDP factors

- *Labor size: Retirement age is among the lowest in EU. At the same time, the age of labor market entry is among the highest.*
- *Capital size: Savings rate is dropping. FDI is discouraged.*
- *Total factor productivity and innovation:*
  - *Education: Funding is decreasing to levels below the EU and OECD averages. We've experienced the second biggest decrease among public funding items during crisis. We give high priority on primary education. Tertiary education is greatly underfunded per student. We have the greatest percentage of people enrolled in tertiary education in the EU, but less than half finish successfully. Our average study period towards the degree is the longest. Study is less efficient with depleted resources.*
  - *R&D: R&D experienced the biggest decrease among public funding items during crisis. Depleted university research resources and dispersed publicly funded research have substantially reduced basic research, and the balance to applied research has been lost. The balance between university and corporate R&D has also been disrupted with the decline of university research. This has led to inefficiencies, because companies have been left to perform research on their own, spending valuable resources. The transfer of research results to business with incubators and technology parks is improving but is out of balance with the lack of basic research.*

## Možne rešitve

Nekatere možne rešitve v terciarnem izobraževanju ponuja Nacionalni program visokega šolstva 2011–2020, ki je bil sprejet v parlamentu, vendar ni bil izveden. Rešitve za R&R lahko najdemo v Nacionalnem raziskovalnem in razvojnem programu 2011–2015, ki je bil pripravljen, obravnavan, vendar žal ne tudi sprejet v parlamentu. Nacionalna politika za zdravila 2012–2017 bi morala predstavljati smernice za raziskave in inovacije na eni strani ter za učinkovitost industrije na drugi.

## Potential solutions

*Some potential solutions in tertiary education are offered by the National Program of Higher Education 2011–2020, which has been adopted by the Slovenian parliament, but not yet implemented. R&D could have found solutions in the National Program of Research and Development 2011–2015, which was prepared, discussed, but sadly not adopted in parliament. The National Drug Policy 2012–2017 should be the guideline for both the research and innovation as well as for the efficiency of industry.*



Richard Bergström



## Vrednost inovacij

**Richard Bergström**, generalni direktor Evropske federacije farmacevtske industrije in združenj (EFPIA).

### Življenjska doba v Evropi se daljša

Zahvaljujoč znanju in novim tehnologijam so v današnji znanosti obeti za najdbo novih zdravilnej večji kot kadarkoli prej. Prebivalci Evrope lahko danes pričakujejo do 30 let daljšo življenjsko dobo od tiste pred stotimi leti. Veliko zmanjšanje umrljivosti (na primer pri AIDS-u, mnogih rakavih boleznih ali srčno-žilnih boleznih) in pomemben napredek v kakovosti življenja sta plod nekaj velikih in mnogih malih korakov v biofarmacevtskem razvoju.

## The Value of Innovations

**Richard Bergström**, General Director of the European Federation of Pharmaceutical Industries and Associations (EFPIA)

### Life expectancy in Europe is increasing

*Science today offers greater promises than ever before for finding new treatments, due to knowledge and new technologies. Today, European citizens can expect to live up to 30 years longer than they did a century ago. Huge reductions in mortality (e.g. in HIV/AIDS, many cancers or cardiovascular disease) and significant progress in the quality of life are the results of some large and many small steps in biopharmaceutical research.*



## Farmacevtska industrija je ključno področje evropskega gospodarstva

Poleg tega, da predstavlja gonilo medicinskega napredka z raziskovanjem, razvojem in ustvarjanjem novih zdravil, ki izboljšujejo zdravje in kakovost življenja po vsem svetu, je na raziskavah temelječa farmacevtska industrija ključna tudi za gospodarstvo Evrope. Predstavlja namreč eno izmed najbolj uspešnih evropskih visoko tehnoloških področij.

Na raziskavah temelječa farmacevtska industrija bo lahko igrala odločilno vlogo pri obnavljanju evropske rasti. Leta 2011 je v Evropi vložila približno 27.500 milijonov evrov v raziskave in razvoj. Neposredno zaposluje več kot 660.000 ljudi in posredno ustvarja še tri- do štirikrat več delovnih mest. Vendar pa se panoga sooča z močnimi izzivi.

Poleg dodatnih regulatornih ovir in naraščajočih stroškov raziskav in razvoja, so panogo močno prizadeli varčevalni proračunski ukrepi vlad večine evropskih držav v zadnjih treh letih.

## The pharmaceutical industry is a key asset to the European economy

As well as driving medical progress by researching, developing and bringing to patients new medicines that improve health and the quality of life around the world, the research-based pharmaceutical industry is a key asset of the European economy. It is one of Europe's top performing high technology sectors.

The research-based pharmaceutical industry can play a critical role in restoring Europe to growth. In 2011, it invested an estimated €27,500 million in R&D in Europe. It directly employs more than 660,000 people and generates three to four times more employment indirectly — upstream and downstream — than it does directly. However, this sector faces real challenges.

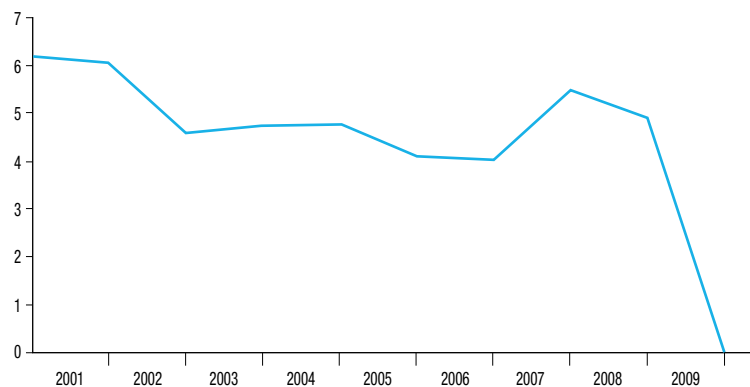
Besides the additional regulatory hurdles and escalating R&D costs, the sector has been severely hit by the impact of fiscal austerity measures introduced by governments across most of Europe in the last three years.

## Gospodarska kriza ima dramatičen učinek na porabo za zdravstveno varstvo v OECD

*The economic crisis has had a dramatic effect on health care spend in the OECD*

vir / source:  
OECD Health Statistics 2012

Stopnje rasti javnih izdatkov za zdravje v OECD  
Growth rates of Public Expenditure in Health Across the OECD







## Okrogla miza Vrednost inovacij

**Pomen inovacij za zdravje, družbeno blaginjo in gospodarsko rast**

Na okrogli mizi vrednost inovacij so sodelovali: prof. dr. Frank Lichtenberg, strokovnjak z Univerze Columbie, ZDA, Richard Bergström, generalni direktor Evropske federacije farmacevtske industrije in združenj (EFPIA), prof. dr. Dušan Mramor, dekan Ekonomske fakultete in predsednik upravnega odbora Univerze v Ljubljani, Samo Fakin, generalni direktor Zavoda za zdravstveno zavarovanje Slovenije, prof. Jože Faganel, predsednik Društva hemofilikov Slovenije, tudi sam hemofilik, in prof. dr. Zlatko Fras, strokovni direktor Interne klinike Univerzitetnega kliničnega centra Ljubljana. Spregovorili so o vrednosti in pomenu inovativnih zdravil. Okroglo mizo je moderirala Majda Hostnik, novinarka in urednica pri časopisu Dnevnik.

Uvodoma je spregovoril prof. Jože Faganel, predsednik Društva hemofilikov Slovenije, ki je o napredku in inovaciji v medicini spregovoril iz lastne izkušnje. Če je bila ob njegovem rojstvu pred 65 leti pričakovana življenjska doba 15 let, lahko danes hemofiliki, zahvaljujoč inovativnim zdravilom za lajšanje in preprečevanje krvavitev, dočakajo pozno starost in živijo polno življenje. Faganela kot bolnika s hemofilijo motijo razprave o tem, da so inovativna zdravila predraga. »Ni drago zdravilo, najdražja je bolniška postelja,« je poudaril in opozoril, da je pri ceni zdravila pomembno upoštevati stroške nadomestnega zdravljenja, ki so lahko mnogo večji.

## The Value of Innovations Roundtable

**Impact of innovations on health, social welfare and economic growth**

*The participants of the Value of Innovations roundtable were: Prof. Frank Lichtenberg, PhD, an expert in the field of the significance of innovative medicinal products for society from Columbia University, USA; Richard Bergström, General Manager of the European Federation of Pharmaceutical Industries and Associations (EFPIA); Prof. Dušan Mramor, PhD, the Dean of Faculty of Economics, University of Ljubljana and the Chairman of the Board of University of Ljubljana; Samo Fakin, Director General of the national Health Insurance Institute of Slovenia, Prof. Jože Faganel, the President of the Slovenian Hemophilia Society and a hemophiliac himself; and Prof. Zlatko Fras, PhD, Medical Director of the Internal Clinic of University Medicinal Centre Ljubljana. They were discussing the value and importance of innovative drugs. The roundtable was moderated by Majda Hostnik, journalist and editor of the newspaper Dnevnik.*

*In the introduction Prof. Jože Faganel, the President of the Slovenian Hemophilia Society, spoke about the progress and innovation in medicine from his own experience as a patient. At his birth 65 years ago, life expectancy of a hemophiliac was only 15 years. But today, owing to innovative drugs for the alleviation and prevention of bleeding, hemophilia patients can live a full life to a ripe old age. As a patient with hemophilia, Faganel is bothered by statements*



Prof. dr. Zlatko Fras



Prof. Jože Faganel

**Prof. dr. Zlatko Fras** je kot strokovni direktor Interne klinike UKC Ljubljana spregovoril o pomenu ustrezne izbire zdravil in dostopu do inovacij za posameznega bolnika. Biološka zdravila lahko namreč dramatično izboljšajo kakovost življenja posameznega bolnika in so zato, kot pravi Fras, »velik korak za človeka«. Fras je kot primer navedel inovativna zdravila na področju revmatologije, saj je z njimi mogoče tako rekoč popolnoma preprečiti hude doživljenjske posledice obolenja, bolnik pa lahko, če je strokovno ukrepanje pravočasno in pravilno, živi povsem normalno, kakovostno življenje. Fras je poudaril, da si brez uvajanja novih zdravil v klinično prakso ne predstavlja izvrševanja poslanstva zdravnika. Zavzel se je za večjo možnost uvajanja novih zdravil, ki zelo veliko prinesejo družbi, največ pa bolnemu posamezniku. Fras meni, da je povišanje prispevne stopnje najmanj boleč način, da bolnikom še naprej zagotavljamo inovativna zdravila. Ob tem poudarja, da je pri nas za vsak vloženi evro v zdravstvu mogoče dobiti bistveno več kot v primerljivih državah.

**Prof. dr. Frank Lichtenberg**, strokovnjak z Univerze Columbia (ZDA), ki raziskuje pomen inovativnih zdravil za družbo, je poudaril, da ta zdravila izrazito izboljšajo kakovost življenja obolelega in njegovo življenje tudi podaljšajo, posledično pa povečajo tudi produktivnost družbe – vrednost česar kar devetkrat presega stroške zdravil. V letih njegovega raziskovanja se je v Nemčiji podaljšala življenjska doba bolnikov za 1,4 leta zaradi zamenjave starih z novejšimi zdravili. Podobno je bilo tudi na Švedskem, kjer je uvedba inovacij bolnikom podaljšala življenje za 1,8 leta. Podatek, da bi bili Američani pripravljeni plačati 150.000 ameriških dolarjev za podaljšanje življenja za eno leto, je dovolj zgovoren in potrjuje, da je za bolnega in njegove svoje možnost podaljšanja življenja neprecenljiva.

Tudi **prof. dr. Dušan Mramor**, dekan Ekonomske fakultete in predsednik upravnega odbora Univerze v Ljubljani, je poudaril, da so inovacije ključ do gospodarske rasti, spodbujene z visoko izobrazbo ter raziskavami in razvojem. Opozoril je, da inovacije omogočajo vzdržnost produktivnosti in gospodarske rasti, kljub staranju prebivalstva. Farmacevtske inovacije tako

*about innovative drugs being too expensive. "It is not the drug that is expensive; the most expensive thing is a hospital bed," he stated, pointing out that as far as the price of a drug was concerned, it was important to take into account the costs of replacement therapies, which could be much higher.*

*Prof. Zlatko Fras, PhD, spoke as the Medical Director of the Internal Clinic of University Medical Centre Ljubljana about the importance of adequate choices of drugs and about patients' access to innovation. Biological drugs can dramatically improve the quality of life for an individual patient and therefore represent, as Fras puts it, "a big step for a man". As an example, Fras cited the innovative drugs in the field of rheumatology, since they can literally completely prevent the worst lifetime consequences of a disease, and rheumatologic patients can, with due and proper professional measures, live perfectly normal lives. Fras emphasized that he could not imagine pursuing the noble medical profession himself without the possibility of introducing new drugs into clinical practice. He called for a greater opportunity to introduce new drugs, which bring to society much good, and they serve any individual patient the most. Fras believes that the increase of contribution rate for health care represents the least painful way to be able to continue providing innovative drugs to patients. He emphasizes that for every euro invested in health care in Slovenia, we can obtain a significantly higher amount of health care than in comparable countries.*

*Prof. Frank Lichtenberg, PhD, expert in the field of the significance of innovative medicinal products for society from Columbia University, emphasized that new drugs markedly improve the quality of life of a patient and they also extend life expectancy; consequentially, they also increase the productivity of a society – a value that is nine times as high as the cost of the drugs. In the years of his research, the life expectancy of the German population increased by 1.4 years as a result of exchanging old drugs with newer ones. Something similar has happened in Sweden, where the introduction of innovations extended the patients' life expectancy by 1.8 years. The fact that Americans would be willing to pay US\$150,000 for an additional year of life is illustrative enough and confirms that the possibility of prolongation of life is invaluable for a patient and his family.*



Prof. dr. Dušan Mramor



Samo Fakin

omogočajo pomembno povečanje obsega in učinkovitosti dela v družbi. Mramor se je v razpravi zavzel tudi za reorganizacijo zdravstvenega sektorja in povečanje učinkovitosti zdravstva.

**Richard Bergström**, generalni direktor Evropske federacije farmacevtske industrije in združenj (EFPIA), je opozoril na krčenje zdravstvenih proračunov, kar v posameznih državah že ogroža sisteme zdravstvenega varstva in povečuje razlike v dostopnosti do kakovostne zdravstvene oskrbe. Ob tem je kot enega neprimernih ukrepov izpostavil uvajanje terapevtskih skupin zdravil. Poudaril je, da so nova zdravila visoko specializirana – vemo, koliko bolnikov bomo zdravili z njimi in vemo, koliko bo to stalo družbo. Zato je načrtovanje izdatkov za nova zdravila možno in ni več nevarnosti, da bomo z njimi ogrozili zdravstveno blagajno. Bergström je poudaril, da se morajo države zavedati nevarnosti, ki jo prinaša tekmovalnost med zdravstvenimi sistemi ob skorajšnji sprostitvi evropskih mej. Opozoril je, da je potrebno vzdrževati zdravstveni sistem na visoki ravni, sicer odliva bolnikov in zdravstvenega denarja v tujino ne bo mogoče preprečiti.

**Samo Fakin**, generalni direktor Zavoda za zdravstveno zavarovanje Slovenije, je poudaril, da bi etično ravnanje z denarjem za zdravstvo omogočilo večjo dostopnost inovativnih zdravil. Zavzel se je tudi za dolgoročno regulacijo zdravstva in izločitev vpliva dnevne politike na zdravstvo. Fakin meni, da bi bilo potrebnih od 10 do 20 milijonov evrov za inovativna zdravila moč pridobiti znotraj zdravstvenega sistema.

*Prof. Dušan Mramor, PhD, the Dean of Faculty of Economics, University of Ljubljana and the Chairman of the Board of University of Ljubljana, also stressed that innovation is the key to economic growth, stimulated by high education and research & development. He pointed out that innovation enables the sustainability of productivity and economic growth despite the aging of populations. Pharmaceutical innovation thus enables important increases in labor extent and efficiency in a society. During the discussion, Mramor advocated the reorganization of the health care sector and increase in the efficiency of health care.*

*Richard Bergström, General Manager of the European Federation of Pharmaceutical Industries and Associations (EFPIA), warned against the shrinking of health care budgets, which has already started to threaten health care systems in some European countries and started to increase the differences in accessibility of quality health care. He exposed the introduction of therapeutic reference pricing as an inappropriate measure. He emphasized that new drugs are highly specialized. We know how many patients will be treated with them and we know how much this will cost the society. Thus, planning the expenses for new drugs is possible and there is no danger left that they would threaten a health care budget. Bergström stressed that countries must be aware of the dangers brought by the competitiveness among the health care systems due to the imminent opening of the European borders for health services. He emphasized the importance of maintaining the health care system on a high level, otherwise the outflow of patients and health care professionals to foreign countries would not be possible to prevent.*

*Samo Fakin, Director General of the national Health Insurance Institute of Slovenia, stressed that the ethical handling with health care money would enable higher accessibility to innovative drugs. He also advocated a long-term regulation of the health care system and the elimination of the impact of everyday politics on health care. Fakin believes that it would be possible to gain €10–20 million for innovative drugs from within current health care system.*



## Nič ne more povečati blaginje družbe bolj kot njeno dobro zdravje

- **Inovativna zdravila omogočajo pomembno podaljšanje pričakovane življenjske dobe.**

Bolniki, ki prejemajo nova zdravila, živijo dlje, obenem pa so tudi bolj zdravi, bolj dejavni, imajo manj življenjskih omejitev in se lažje vključujejo v dnevne aktivnosti. Inovativna zdravila omogočajo pomembno podaljšanje pričakovane življenjske dobe.

- **Raziskave in razvoj za daljše življenje in hitrejšo gospodarsko rast.**

Hitrost gospodarske rasti je dolgoročno odvisna od tehnološkega napredka, ki ga ustvarjajo zasebne ter javne naložbe v raziskave in razvoj. Farmacevtska industrija in industrija medicinskih naprav sta industriji z največjimi vlaganji v raziskave in razvoj v celotnem gospodarstvu.

- **Finančne koristi, ki jih imajo inovativna zdravila za družbo, znatno presegajo njihovo ceno.**

Finančne koristi, ki jih prinašajo inovativna zdravila, vključujejo nižje skupne izdatke za zdravstvo, povečano sposobnost ljudi za delo in izvajanje drugih dejavnosti ter večjo kakovost življenja in daljšo pričakovano življenjsko dobo. Naložbe v zdravje in zdravila so neposredno povezane z daljšo življenjsko dobo in kakovostjo življenja, s tem pa tudi z večjo delovno sposobnostjo in produktivnostjo prebivalstva, kar prispeva h gospodarski rasti in blaginji celotne družbe. Med leti 1970 in 2000 je podaljšanje pričakovane življenjske

## Nothing increases the prosperity of a society like its good health

- **Newly approved medicines significantly prolong life expectancy**

*Patients who take newer drugs are not only more likely to survive, but they are also in a better state of health, their functional status is better, they have fewer activity limitations and they are more able to engage in activities of daily life. Newly approved medications significantly prolong life expectancy.*

- **Longevity increase is an important part of economic growth and development**

*In the long run, the rate of economic growth is determined by the rate of technological progress, which is generated by private and public R&D investments. The pharmaceutical and medical-device industries are the most R&D-intensive industries in the economy.*

- **The financial benefits that innovative drugs bring to a society significantly exceed their price**

*Benefits consist of reduced total health care expenditures, increased work capability and the capability to perform other activities, and increased contribution to the quality of life and life expectancy. Investments in health and drugs are consequently directly associated with the increase in the productivity of the population, which leads to the economic growth and well-being of the entire society. Between 1970 and 2000, additional life expectancy in the United States accounted for more than three trillion dollars*



dobe v Združenih državah Amerike prispevalo k blaginji države v znesku več kot tri bilijone dolarjev – nepredstavljivo visok znesek. Pričakovana življenjska doba v Sloveniji je zrasla za skoraj 8 let (z 72,19 v letu 1985 na 79,96 v letu 2010) v zadnjih četrtn stoletja, v veliki meri zaradi uvedbe novih zdravil.

• **Inovativna zdravila morajo biti pravočasno in enakovredno dostopna vsem bolnikom.**

Forum si kot dejaven deležnik v slovenskem zdravstvenem sistemu prizadeva za partnerski odnos z regulatorji zdravstvene politike. Skupaj lahko oblikujemo finančno vzdrženi in učinkovit zdravstveni sistem, ki bo zagotavljal pravočasen in enakovreden dostop do inovativnih zdravil vsem bolnikom. Nič ne more povečati blaginje družbe bolj, kot njeno dobro zdravje.

• **Vprašanja, povezana z dostopnostjo, je potrebno uskladiti z nagrajevanjem inovativnosti, zagotavljanjem stalnih in stabilnih možnosti zdravljenja za slovenske bolnike ter dostopom do novih zdravil.**

Forum se zaveda gospodarske krize in njenih posledic, zaradi katerih je naša vlada prisiljena sprejemati različne ukrepe za zmanjševanje stroškov. Že večkrat smo pokazali svojo pripravljenost pomagati v teh težkih časih. Toda pri tem je bistveno, da se vprašanja, povezana z dostopnostjo, uskladijo z nagrajevanjem inovativnosti, zagotavljanjem stalnih in stabilnih možnosti zdravljenja za slovenske bolnike ter dostopom do novih zdravil. Poleg tega je treba pri iskanju rešitev za zmanjševanje stroškov upoštevati temeljne elemente uspešnega gospodarstva: stabilnosti, predvidljivosti, konkurenčnosti, vzdržnosti in gotovosti poslovnih naložb v Sloveniji ne bi smeli ogroziti.

*in prosperity — an unimaginably high amount. Slovenian life expectancy has risen by almost 8 years (from 72.19 in 1985 to 79.96 in 2010) in the last quarter century, due in large part to the introduction of new drugs.*

• **Innovative drugs should be timely and equally available to all patients**

*The Forum is an active stakeholder in the Slovenian health care system and strives to act as a partner with the health authorities in creating a financially sustainable and effective health care system in which innovative drugs would be promptly and equally available to all patients. Nothing increases the prosperity of a society like its good health.*

• **It is important to balance affordability concerns with reward for innovation, continuous and stable treatment for Slovenian patients and access to new medicines**

*The Forum is aware of the economic crisis and its impact, which is forcing the Slovenian government to implement various cost-containment/austerity measures, and has — on several occasions — demonstrated the willingness to help during such a difficult era. However, it is critical to balance affordability concerns with reward for innovation, continuous and stable treatment options for Slovenian patients and access to new medicines. Furthermore, when seeking cost-containment/austerity solutions, the basic components of a successful economy have to be taken into account and should not be disrupted: stability, predictability, competitiveness, sustainability and the certainty of business investments in Slovenia.*



## O Mednarodnem forumu znanstveno-raziskovalnih farmacevtskih družb, GIZ

Mednarodni forum znanstvenoraziskovalnih farmacevtskih družb, GIZ, je bil ustanovljen leta 2002. Danes šteje 22 članic – inovativnih farmacevtskih družb, ki imajo več kot 50-odstotni vrednostni tržni delež v Sloveniji. V članicah Foruma je zaposlenih 750 visoko usposobljenih strokovnjakov.

Članice Foruma zagotavljajo in podpirajo oskrbo z najnovejšimi inovativnimi, učinkovitimi in varnimi zdravili ter zdravstvenimi storitvami v Sloveniji. Obenem pa si prizadevajo vsem državljanom Slovenije omogočiti dostop do visokokakovostnih informacij o inovativnih zdravilih in možnostih zdravljenja.

Družbe članice Foruma odločno zagovarjajo pravočasen dostop do inovativnih možnosti zdravljenja, etično in družbeno odgovorno poslovno delovanje ter partnerstva z vsemi deležniki v sistemu zdravstvenega varstva. Na področju oskrbe z inovativnimi farmacevtskimi izdelki Forum zagovarja dve poglavitni načeli: ozaveščeno javnost in ozaveščenega bolnika. Informacije pomagajo ljudem preprečevati bolezni, olajšajo zgodnje odkrivanje in boljše zdravljenje bolezni ter spodbujajo sodelovanje dobro informiranih bolnikov pri sprejemanju odločitev, ki vplivajo na njihovo zdravje, kar vse skupaj pripomore k bolj zdravi družbi.

Forum je član Evropske zveze farmacevtskih industrij in združen (EFPIA) in svojim članicam in drugim deležnikom zagotavlja potrebno usposabljanje.

## About the Forum of International Research & Development Pharmaceutical Companies, IIG

*The Forum of International Research & Development Pharmaceutical Companies, IIG, was founded in 2002 and currently includes 22 innovative pharmaceutical companies that represent more than 50% of the market share in value in Slovenia. Members of the Forum employ 750 highly qualified experts.*

*The Forum's members are dedicated to ensuring and supporting the supply of the most up-to-date, innovative, efficient and safe medicinal products and services to Slovenia, and strive to enable all Slovenian people access to high-quality information about innovative therapeutic solutions for treatment and medicinal products.*

*Members of the Forum strongly advocate timely access to innovative therapeutic solutions, ethics, and social responsibility in their business activities and partnership with all stakeholders in health care. Regarding the provision of innovative pharmaceutical products, the Forum believes in two main principles: informed public and informed patients. Information helps people prevent diseases, facilitates the early discovery and better treatment of diseases, stimulates the co-operation of well-informed patients in the adoption of decisions that influence their health, and leads to a healthier society.*

*The Forum is a member of the European Federation of Pharmaceutical Industries and Associations (EFPIA) and provides the necessary training for its members and relevant stakeholders.*

Forum kot predstavnik inovativne farmacevtske industrije je priznan partner družbe pri promociji najboljših možnih zdravstvenih rešitev za prebivalce Slovenije.

*Forum as the representative of the pharmaceutical industry, is an acknowledged partner of society in promoting the best possible health care solutions for Slovenia.*

#### Inovativnost za izboljšano kakovost oskrbe bolnikov

*Innovation for improved quality care of patients*

FORUM krepi sodelovanje med svojimi člani in deležniki v podporo raziskavam in razvoju inovativnih rešitev zdravljenja, za reševanje življenj in izboljšanje kakovosti življenja bolnikov.

*FORUM fosters collaboration between its stakeholders to promote the value of research and development in innovative therapeutic solutions to save lives, improve the quality of life of patients and benefit society.*

#### Temelj zaupanja v farmacevtsko industrijo

*Trust base for the pharmaceutical industry*

FORUM dejavno podpira ustvarjanje novega temelja zaupanja med industrijo in družbo, ki temelji na odkritem vzajemnem razumevanju pomena in vrednosti industrije. Tako krepi ugled industrije kot dragocenega partnerja v zdravstvenem sistemu.

*FORUM actively supports the creation of a new trust base between the industry and society based on a consistent, ethical and transparent interaction with all stakeholders.*

*By doing so and by active communication, it enhances the industry's reputation as a trustworthy partner in the health care system.*

#### Trajnost in visokokakovosten zdravstveni sistem

*Sustainable and high quality health care system*

FORUM s pomočjo strokovnega znanja svojih članov izboljšuje poučenost družbe glede zdravstvenega varstva in dviguje kakovost zdravstvene oskrbe v Sloveniji.

FORUM dejavno prispeva k oblikovanju trajnostnega zdravstvenega sistema.

*FORUM uses the expert knowledge of its members to improve education and awareness of society on health care topics and to further the quality of health care in Slovenia.*

*FORUM actively contributes to shaping a sustainable health care system.*

#### Dostop do najboljših možnosti zdravljenja

*Access to best therapeutic solutions*

FORUM s proaktivnim delovanjem na mnogih področjih zdravstva bolnikom zagotavlja široko dostopnost do sodobnih inovativnih možnosti zdravljenja.

*FORUM advocates the wide availability of modern therapeutic solutions for patients by proactively engaging the health care system.*

**Inovativnost**

**Osredotočenost na bolnika**

**Preglednost**

**Trajnost**

**Partnerstvo**

*Innovation*

*Patient focus*

*Transparency*

*Sustainability*

*Partnership*



**Mednarodni forum znanstvenoraziskovalnih  
farmacevtskih družb, GIZ**

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